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Volume 14
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December 1908-
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THE EASTERN FARMER BLOODED DAIRYMAN AND POULTRY RAISER

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"Announced by all the trumpets of the sky,
Arrives the snow, and, driving o'er the fields,
Seems nowhere to alight; the whited air
Hides hills and woods, the river and the heaven,
And veils the farmhouse at the garden's end."
—Emerson.

Volume XIV

Number X

PUBLISHED MONTHLY AT
OXFORD, - PENNSYLVANIA

Twenty Five Cents a Year

One Dollar for Five Years

December
1908

A LITTLE FUN

A LITTLE FUN.

Carefully Selected Here and There.
Some of It as Original as a Joke
Can Be.

CALF'S TAIL.

The proprietor of a tanyard was anxious to fix a suitable sign to his premises. Finally a happy thought struck him.

He bored a hole through the door-post and stuck a calf's tail into it, with the tufted end outside.

After a while he saw a solemn-faced man standing near the door looking at the sign. The tanner watched him a minute, and then stepped up and addressed him.

"Good morning, sir," he said.
"Good morning," said the other, without taking his eyes off the sign.
"Do want to buy leather?" asked the tanner.

"No."
"Are you a farmer?"
"No."

"What are you, then?"
"I am a philosopher. I've been standing here for nearly an hour, trying to find out how that calf got through that hole."

COULD DEFEND HIMSELF.

Scene, a courtroom. A big, burly artisan is brought in by the bailiff and placed in the dock. He is a regular Hercules in point of stature and is brought up on a charge of assault. It is evidently his first appearance in court.

When he enters the Magistrate is busy with his papers, but presently looks up hurriedly, and, turning to the prisoner, exclaims:

"Have you engaged any one to defend you?"

"What's that?" asks the prisoner; then, collecting himself, he adds: "I don't want anybody. Come on, any half dozen of you!"

Rode the Durn Thing.

The citizens of a Georgia city of ten thousand people arranged for a Chautauqua assembly last summer. They held the meeting in a big tent a mile from town. The attendance was large from the first day.

An enterprising circus man heard of the large crowds, and located a steam merry-go-round halfway between the town and the Chautauqua grounds. Along in the afternoon a young man from the country, coming from the direction of the Chautauqua, was accosted by a citizen who knew him, "Well, Ezry, I suppose you are in to the Chautauqua?"

"I shore are; just come from thar now."

"How'd you like it?" asked the townsman.

"Fine as a fiddle! I rode on the durn thing nine times."

No Chance for a Miracle.

One day Dr. Norman McLeod, who was a large and healthy man, and one of his burly elders went to pay a visit to a certain Mrs. McLaren of the congregation, who lived in the Scotch Hills. She was a frugal woman, but determined that they should have the best in the house. So she plied the table with jellies and jam and preserves and shortbread, and they par-took unsparingly. After the meal, the elder said to her: "Mrs. MacLaren, were you at the kirk on Sunday?" "Oh, aye," she said, "I was." "And what did you think of the treatment of the miracle?" (the sermon had been on the loaves and fishes.) "I thought it was good," said Mrs. MacLaren. "And what is your idea on the subject, Mrs. MacLaren?" asked the minister.

"Losh," said the hostess suddenly: "I'm thinkin' that if you and the elder had bin in the congregation there wadna bin twelve baskets of fragments for the disciples to gather up!"

Rural Suggestion.

Commissioner—"How do you desire to be uplifted?"

Farmer Hayrick—"Wal, ye might start in by growin' a better class of city boarder."

Truthful Willie.

She was city bred and had the usual fear of cows.

"Why," she asked, when the danger was past, "did you take me across this lot?"

The small country lad chuckled.
"I thought it would be fun," he said, "to see you try to climb a tree." Then, after another chuckle, "And it was."

His Ambition Was O. K.

"The only objection I have against the young man, my dear child, is that he has no noble ambition—no high or worthy object in life." "Oh, papa, how can you say so? He wants me."

PRAYERS FOR LUCY GREY.

Had the new clergyman been younger he might have suspected something; for his parish held not a few horse raisers who had been known to race their stock. But forty-nine is often unsophisticated; so, by request of one of the deacons, prayers were offered up three successive Sundays for Lucy Grey.

On the fourth Sunday the deacon aforesaid told his superior, just before the morning's service, that the prayer need no longer be repeated.

"Indeed?" queried the good parson, with an anxious look. "I hope Lucy's not dead?"

"Oh, no," came the reply; "but she has won."

Not the Kind She was Interested in.

"Anything new in kids?" inquired the stylish young lady while on her shopping tour.

"Yes," replied the polite salesman absentmindedly, "twins last night—I beg your pardon—"

But the stylish lady was out of sight.

Drink It In Cider.

In olden times the following inscription was found printed on many English drinking vessels:

Let the wealthy and great
Roll in splendor and state;
I envy them not, I declare it,
I eat my own lamb,
My chickens and ham,
I shear my own fleece and wear it.
I have lawns, I have bowers,
I have fruits, I have flowers;
The lark is my morning alarmer,
So my jolly boys now,
Here's God speed the plough,
Long life and success to the farmer.

Not Our Readers.

City cousin (in country, with balky livery horse)—"Beg pardon, sir, but what do you do when youah horse balks?" Farmer—"Trade him. Git up, Bill!"

THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food (The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Puritan-American Poultry Food Mfg. Co.,
291 Broadway, New York City



Blooded Stock, December, 1908

The Eastern Farmer, Dairyman and Poultry Raiser

SUBSCRIPTION—25 cents a year; five years for \$1.00. Single copy 5 cents. Discontinued at end of paid subscription. Samples on application. Canada subscription 12 cents extra.

SUBSCRIPTIONS—Can be sent at any time and will begin with the current issue unless otherwise specified.

HOW TO REMIT—Send money by Postal Money Order, Express Order, Bank Draft, or Registered Letter. One and two cent postage stamps in good condition accepted for small amounts.

CHANGE IN ADDRESS—When ordering a change in address be sure to give former as well as present address.

ADVERTISING RATES—15 cents for each agate line, each month. 5 per cent. discount for cash with order. Average seven words to a line. Fourteen agate lines to an inch measure.

Printed on the first day of each month by C. E. Morrison.

Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

DO YOU LIKE OUR NEW PAPER?

Of course it's too soon to expect very much comment, and our November number was only a start anyway, and yet we believe you will grow to like the journal more than you ever have in the past.

Mr. A. V. Huyler, one of our New York State readers, promptly wrote us:

"I like the change in your paper and believe it will please."

We are going to repeat part of our notice from November number, as it is difficult to explain our plans any more clearly.

IT IS EXCLUSIVELY FOR THE EAST.

And by the East we mean the States of Ohio, Pennsylvania, West Virginia, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Vermont, New Hampshire, Massachusetts and Maine, states where farming conditions are more nearly uniform.

A territory within the reach of the advertisers whose market is the thrifty country people of the East, and who want to cover it without getting western circulation that is of no benefit to them.

Our paper is free and independent, and advertisers are not forced to use other papers that they do not want in order to get the lowest advertising rates.

The Subscription Price Will be 25 cents a year; 5 years \$1.

Subscribers who have paid more than 25 cents for a year will have their date of expiration extended so as to receive full value for every penny they have sent us.

Now there is a field for such a paper, and we ask you to co-operate with us to make it what it should be.

Write to us. There are in the lives of every farmer, of every wife of a farmer, and of every hired man, and hired girl on a farm, of every one who lives in the country, whether old or young, incidents, experiences, trials, perplexities, and pleasures that would be of interest and instruction and amusement to the rest of us. Let us know about them. Sign your name or not, as you see fit, but let's unite to make this the best farm, home paper ever turned out.

When you can, without inconvenience, ask a friend or neighbor to subscribe. For sending us a club of three subscribers at 25 cents each, or one at one dollar for five years, we will renew your subscription a year for your courtesy and trouble.

WHERE WE STAND—

For the Farmer First, Last and All the Time.

Why not! The man of finance has his Wall Street journal; the banker, the American Banker. The American Druggist looks after the interests of its trade, and the school teachers have over a hundred periodicals in their profession. The Dry Goods Economist and Toilettes are marvels in their line, and it would be hard to find a stauncher champion than the Locomotive Fireman's Magazine.

Each and every profession, trade and calling has its "trade" journal, and it's wise that they should.

So, of course, has the farmer, many of them, but Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser happens, designedly, to be the only monthly journal published exclusively for the farmer of the Eastern States, and its purpose is to herald, and fight his interests against all comers.

But to do it unselfishly and with malice toward none.

FARM BRIDES AND GROOMS

GET A YEAR'S SUBSCRIPTION FREE.

We have a friend who was born on a farm and lived and worked there until almost twenty, but whose business has kept him in the city for the last twenty-five years, who has asked us to say to you he believes so firmly that the future of every young farmer and his bride will be so much brighter and happier if they start out with a good farm paper to grow up with, that if they will allow him to do so he would consider it a privilege and favor to pay for a year's subscription to Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser.

All you need do is to send us within two or three weeks of the wedding your name and address, and the date of your marriage, and the paper will be mailed to you for twelve months without any expense to you. Remember, the paper will not be sent to you beyond the time for which the subscription is paid. Of course you will be notified of expiration and we will be glad of renewal.

We have been asked for the address of the Kansas State Board of Agriculture, on account of the little notice on the poultry page of our November issue. No other address is needed, as Uncle Sam is a pretty intelligent fellow, but you may add Topeka, Kansas, if you wish.

THE COW AND THE DAIRY

DUTCH BELTED CATTLE IN THEIR NATIVE LAND.

At their home in Holland, Dutch Belted Cattle are known as Lakenvelders, or Veldlarkers, meaning a field of white, a black body with black heads and tails.

The early history of the breed is largely wrapped in uncertainty. And while the records go back to the middle of the eighteenth century, it's probably true that the process of breeding and selection was well under way more than a hundred years earlier.

In those days, in and around that part of Holland known as Haarlem, there were wealthy men who interested themselves in breeding all farm animals to certain fancies of their own in color, principally with a white belt. And that they were eminently successful we know because of the Dutch Belted Cattle of Holland and America; the Lakenvelder chickens which we see more frequently now at poultry shows, and the Lauch swine and Hampshire swine, all of which have a distinct white belt.

You know in Holland, because of its damp, raw climate, cattle at calving time are carefully blanketed, and the idea got abroad that if white blankets were used the calves would be marked with a white body. However that may be, as time went by calves came more regularly and distinctly marked with the white belt, and a new breed was firmly established.

The Lakenwelder is a good, strong dairy breed, with small head, slim neck, deep body, straight back, level, broad hips and large udder, with well developed milk veins, and it is to be hoped our American dairymen will investigate the merits of this animal more closely than heretofore. There are only a few hundred head, in Northern Holland, but they are being exported in increasing numbers to other European countries, South Africa, Mexico, and United States, where they are growing in favor. These cattle at home are larger than those bred here and the belt of white is generally wider; frequently they have white on the hind legs.

Sometimes we hear of them with white around their eyes, but this is a cross.

There is no more fascinating reading than to follow the establishing of a new breed of farm animals, and this winter when the evenings are so long it would be a good idea to set aside an hour or so every night for this particular line of study. It will give us a better understanding of our animals, and more respect and appreciation of them.

To get the best results in this life we must be interested in our work, no matter in what line it may be. On the farm, if we are hog breeders, or dairymen, or grain growers, or poultrymen, we must have the breed that appeals to us or nearly all, if not every particle of enthusiasm will be lacking, and without enthusiasm we cannot do the best of which we are capable, no

matter who we are. Profits are incentive enough to a few, but the great majority of us must have first of all a satisfying of our own ideas, or rather, perhaps, a confirmation of our own ideas and convictions.

And what a blessing it is that we do not all think alike.

The ideal, perfect dairy cow has not yet been reached by any means. If it had it would soon be allowed to deteriorate so far that work would have to be started all over again. You remember the old saying "Necessity is the mother of invention." Just so long as there is a need to be filled, just so long will human speculation and ingenuity be restless and busy.

When you are working out your own ideas in regard to the dairy cow, give the Dutch Belted Cattle quite a little thought. They are well worth looking into more seriously.

THE STORY OF THE AYRSHIRES.

The 1908 Year Book of the Ayrshire Breeders' Association is a thoroughly artistic, interesting, and instructive little volume of 158 pages. It contains a complete report of the annual meeting, the official milk and butter records of the Ayrshire breed, a fund of information about this great breed of dairy cows, and about the Association in general.

There is an interesting historical sketch by C. M. Winslow, the Secretary of the Association, which gives an account of the establishment and perfecting of the breed, from the county of Ayr in Scotland down to the present, official milk records of the best American herd.

Every breeder of dairy cattle recognizes the strong point of the Ayrshire. It is perhaps the youngest of the thoroughly established dairy breeds but it is very rapidly coming into popularity. The enthusiastic admiration of the Ayrshire exhibit at the National Dairy Show in 1907 was marked. The row of 30 matrons was commented upon in all dairy circles. Twelve of these form one of the photographs illustrating the booklet. It is the duty of every dairyman to be posted upon the merits of other breeds as well as the one in which he is vitally interested.

Write to C. M. Winslow, Brandon, Vt., for this Year Book. It is free if you mention this paper. It will be an addition to your library and it will pay you to read and study it.

The writer remembers, when a youngster in the seventies, his father buying an imported Ayrshire cow just as she arrived from the Old Country. Irrespective of her registered name, for she was registered as I remember it, we children christened her Nellie. Her first calf we named Alice. Her second Rosie, etc. Soon we had a stable full.

Nellie was assigned to my particular care, and how my young wrists did ache milking her every night and every morning. Not that she was hard to milk, but because she gave so

much milk. In those days we used a "Patent" pail and Nellie used to give us about three pails full a day. But how thin the cream was, and how blue the skimmed milk. And how she did eat.

Poor Nellie was kept for years after we left the farm, but finally found her way to the butcher and despite her age made good, tender, juicy eating, so we were told, for of course none of us would eat up our old friend and chum Nellie.

I do not remember what she cost, but do know she was to father a very profitable cow, and that we won many prizes with her and the calves at the fair.

As far as I know her descendants are still thriving around home.

NEW DAIRY INSTRUCTOR AT CORNELL.

Mr. E. S. Guthrie, an Iowa farmer's son, for three years instructor in butter making in the Dairy Department, at Ohio State University, and Secretary of the Ohio State Dairyman's Association, has been appointed Instructor in the Department of Dairy Industry, at New York State College of Agriculture, Ithaca.

Mr. Guthrie has had an unusually wide practical experience as well as scientific training that fits him for exceptional work at Cornell.

"You've Got To Show Me"



Are you one of those men who have to see it—to believe it?

If you are, we want to do business with you, because we believe in letting a man see and try a

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before asking him to buy; for in the end it means a satisfied customer.

Compare a Tubular with any other make and see if it isn't easier to fill, oil, turn, handle and clean, and the simplest machine made.

To prove its efficiency, durability and economy, try one. Catalogue 300 tells how. Sent free upon request.

THE SHARPLES SEPARATOR CO.,
West Chester, Penna.

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ELIMINATE THE UNPROFITABLE COW.

If you had three men working for you on the farm, and one of them was a shirker you'd soon get rid of him wouldn't you? Of course you would. And yet thousands of farmers who refuse or neglect to test their cows are keeping shirkers in their herds.

The profits in farming and dairying are fairly good but never good enough to stand a persistent leakage. Don't forget it works both ways, and that the cow which is not making money for you is eating food and taking up time and room that, given to some other cow, would be making good money for you.

Too many farmers guess their cows are doing all right. It's easy and inexpensive to test them and we promise you will be surprised to find just who the shirker is.

If you need any instructions for testing don't hesitate to ask us.

In a recent test of nine herds there were six records showing over 290 pounds of butter-fat per cow; 24 showing between 240 and 290 pounds; 43 between 190 and 240 pounds; 53 between 140 and 190 pounds; and 33 less than 140 pounds of butter-fat per cow. As a general thing, this shows a little improvement over the average butter-fat yield of two years ago, which was 140 pounds.

The best 33 cows yielded 268 pounds of butter-fat each, valued at \$61.60.

The poorest 33 cows yielded 118 pounds of butter-fat each, worth \$27.14; representing an actual loss upon the expense of keeping the cows of \$4.86 per cow.

Another Special Reason for Being a Dairy Farmer.

With selling farm crops there is sure to be some loss of fertility of the soil. Just how much different grains remove is a question that has been answered frequently but is always interesting.

With \$1,000 worth of wheat there will be taken off the farm about \$240 worth of fertility; in \$1,000 worth of beef, \$85; in \$1,000 worth of pork, \$60; in \$1,000 worth of horses, \$35; in \$1,000 worth of milk, \$110; in \$1,000 worth of butter, only \$1.25 worth of fertility.

Of course these values are subject to change as the market for fertilizers varies, but they show why dairy farming, that is, buttermaking on the farm, can be made so profitable.

Butter carries away practically no fertility, and farm separating gives the skim-milk directly back to the live stock, and through the stock straight back to the soil, increasing the soil fertility and multiplying the salable products of the farm.

HOLDING UP MILK.

Nearly all farmers and country people think that the "giving down" or "holding up" of the milk by the cow is a voluntary act. In fact they fancy that the udder is filled with milk and that the cow releases or withholds it just as she chooses. Now the fact is the udder is a manufactory; it is filled with blood from which the milk is manufactured while you milk. This process is controlled by the cow's nervous system; when she is excited or in any way disturbed, as by a stranger,

or by taking away her calf, or any other cause, the process is arrested and the milk will not flow. The nervous energy goes elsewhere. The whole process is as involuntary as is digestion in man, and is distributed or arrested about the same way.—John Burroughs.

A Very Sick Cow.

I have a cow nine years old which was in perfect health as far as I could see until a few weeks ago, when she began to fail in her milk and seemed to lose her appetite. A week or so ago I noticed she was very stiff in one hind leg, but that seems to be gone now. I began feeding her a little corn and oats with a handful of oil meal twice a day, which she seems to relish. When fresh she gave five gallons a day for a month. She was out all summer on good grass and clover pasture, without shade, and when the extreme hot weather came she seemed to notice the heat very much, so I tried to bring her in each day by noon and leave her in the shade until cooler. She would pant a good deal and refuse to leave the shade or eat until 6 o'clock. She became quite thin and is now giving only a gallon of milk a day. Do you think it was the heat? Her eyes look bright.

Possibly indigestion or constipation is causing the lack of appetite and decrease in milk flow, but tuberculosis is so common that one always should suspect that disease in such a case and have the animal tested with tuberculin to settle the matter. If she is free from that disease we would physic her with a pound and a quarter of epsom salts, a cupful of salt, a cupful of molasses and three pints of warm water given carefully as one dose. Follow with one of the following powders three times daily in half a pint of thin gruel or flaxseed tea: Powdered nux vomica, half a dram; quinin, half a dram; powdered gentian root, two drams, and powdered ginger root, one dram; mix. Get twelve powders each to contain the above amounts of medicine.

She Has Catarrh.

I have a cow that has a little mucus in her nose in the morning as though she had a cold. Do I need to give her anything?

If the discharge is of recent occurrence, it will probably pass off with good quarters and care. But if it is of long standing you may give medicinal doses of arsenite of copper twice daily and rub the face and frontal region of the forehead with equal parts of raw linseed oil and turpentine, twice a week.

Looks Like Tuberculosis.

One of my cows is in good condition but she often coughs as if there were an irritation in her throat, and I have noticed lately that right under her jaws, close to her throat, there is a small bunch. Would you say that this is the beginning of lumpjaw and is the cause of her cough? She has been affected for a couple of months.

Lump jaw is not to be suspected in such a case, but I consider it highly probable that tuberculosis is present and the cause of the enlargement of the glands and of the cough. I would advise you to have the cow tested with tuberculin and meanwhile do not use her milk.

The Third Annual National Dairy Show at Chicago.

If you haven't had a trip, now that things have "settled down for a long winter's nap," go out to Chicago and see the Dairy Show, and charge the expense up to permanent investment, because there are no two ways about it, if you go there with your eyes open and with your mind not determined that no one can teach you anything new about dairy cows and dairying the effect of your trip will show on the right side of the ledger for your farm as long as you live.

At this show some of the finest dairy herds in the world will be exhibited. They will come from all parts of the United States and Canada. It will be the best show of dairy cattle ever presented to the public. The display of dairy machinery will be better and bigger than ever before, showing many new inventions and dairy apparatus.

\$7000 in cash premiums besides special prizes and trophies will be offered to the live stock exhibitors, and \$2000 in cash prizes to managers and secretaries of creameries and cheese factories.

The educational features will be a Dairymen's Convention; an International Milk Dealers' Association Convention; a Convention of creamery and cheese factory Managers and Secretaries.

There will be a continuous educational programme, and speakers of national reputation will deliver addresses before these conventions.

A Students' Judging Contest will take place with ten agricultural colleges represented.

Milk and cream in all their various forms for household preservation and use will be an important feature.

A herd of Kerry-Dexter cattle from Kerry County, Ireland, will be shown and milking machines will be operated twice daily.

There will also be an afternoon and evening entertainment to prevent the mind getting clogged.

The Milkmaids Chorus, dressed in costumes representing the milkmaids of the countries in which the different dairy breeds of cattle originated; a Milkmaids' Contest, where goats will be used instead of cows; a Churning Contest; Prof. Sunlin and his Trained Bull; A Country Circus.

Then there will be two parades of cattle daily, and the management announces that Colantha 4th's Johanna, the Champion Dairy Cow of the world, will be on exhibition.

DITTO'S Triple-Geared Ball-Bearing Double-Cut **FEED GRINDER**

A few bushels of corn this year buys you the mill that does all kinds of grinding and lasts many years.

An Honest Mill Sold in an Honest Way

Try it. No money down. I trust you. Keep it if satisfied. If not, return it at my expense. I can't afford to have any dissatisfied customers. I want you to prove for yourself that it is the fastest grinding, easiest running and in every way the best mill made. Do this at my expense. I take all the risk. Write for my FREE catalog today.

G. M. DITTO, BOX 116, JOLIET, ILLINOIS

OUR HORSES

HORSES ARE FED TOO MUCH HAY.

Farmers, and horsemen generally, have very much to learn about feeding hay to horses. Too frequently the horse himself is left to judge how much he shall eat, and that means all he can stuff into himself, and in this way many a good animal is ruined.

The writer has had sixteen years experience handling draft horses, under all sorts of conditions, including four years at a state experiment station, and has found that it answers all purposes best to feed not over one pound of hay for each hundred pounds of the horses weight. A thirteen hundred horse would receive thirteen pounds of hay daily, and so on. This amount of hay and a grain ration composed of corn, oats and bran, mixed in the proportion of fifty pounds of corn, fifty pounds of oats, and twenty-five pounds of bran, will make any horse fit for a hard day's work. One will generally have to feed from one to one and a half pounds of grain per day to every hundred weight of horse. The smaller amount may do when he is at light work and the larger amount when at heavy labor. Such a mixture as this fed along with the amount of hay mentioned will keep a horse in good spirits. The grain ration is sufficiently fattening, while it is also flesh-forming enough in character to impart a decidedly wearing quality to the muscles.

It is true that some horses will eat much more hay than amount mentioned, but it is a mistake to give him any more, as a horse can only digest and assimilate a certain amount. Keep in mind that his appetite is like that of many of his drivers generally bigger than his powers of assimilation. In many cases horses that eat large amounts of hay become hard-looking, while they have little life or snap in them. Men go on from year to year with their horses in this condition without knowing what causes it.

It is usually advisable to feed only a small amount of hay in the morning and at noon, making the night feed more liberal, though not so much so that the horse will not clean it up in a reasonable length of time and then lie down for a comfortable night's rest.

It should be mentioned in this connection that horses should be watered before and never immediately after a meal.

It goes without saying that hay should always be clean and bright, and if this is the case the kind of hay does not matter so much, though I have a preference for timothy and clover mixed in about equal parts. Timothy is not really so very rich in nutrients, but there is something about it of which the horse is exceedingly fond, and as palatability has much to do with digestibility it is wise to cater to some extent to the animal's tastes.

Those who feed thirty and forty

pounds of hay a day to a work horse will have little faith in the weights above mentioned, but, as already stated, this has not been guess work with me, as it has been necessary here, in connection with our experiment work, to weigh all the feeds used for the live stock on the experiment station. I can testify that under such treatment our horses have always looked well, while they have been obliged to put in a good ten-hour day through the season of the year when they had work on the land."

Contractors and draymen who do heavy work will tell you that a horse works better if he is not fed too much hay. One especially careful and successful contractor that we have in mind never feeds hay to his horses in the morning or at noon, but feeds about fifteen pounds at night. He claims that on this ration he can get much better work out of his horses than if he kept his mangers stuffed with hay, and his horses always look well.

By overfeeding hay you not only injure your horses, but you waste hay that is always worth good money. Remember it is not what an animal gets down into his stomach that gives him health and strength, but that it's only that part that he fully digests and assimilates.

Think this over carefully and make a test of it for yourself. You know there are some facts that are better than our own ideas at least sometimes.

ARTICLES ON HORSES NEEDED By the Editor.

It's always difficult for the editor of a farm paper to get articles and notes on horses, and the reason isn't so very hard to find.

To the average farmer the horse is good or bad, according to the amount of work he can get out of him, and the chief, if not only point, from which he decides his value, is the work he does.

With the cow it's different. If she isn't a good butter maker she may give so much milk that the milkman is glad to have her. Perhaps she's good for the cheese factory. Her calves may be extremely valuable, and if she fails in all these there is still the butcher, who will gladly pay from twenty-five to thirty dollars for her as beef.

But our poor old friend, the horse, must be a slave day after day and when he can't "make good" at the whiffletree no one cares for him, not even the butcher.

"My black hen lays eggs for the gentlemen," so even she is of more esteem than the horse, as we are all tickled when it's chicken pot-pie day. Mistress piggy is blessed with so many little ones that it pays well to keep her, and any time she's fat she's worth a good price at the block.

The sheep not only makes good eating, but how our teeth would chatter these cold winter nights if we didn't have a woolen blanket or two to pull over us.

Writers never grow weary repeat-

ing old things over and over again and telling us new things about all the farm animals except the horse. And inventors are always fighting against him.

There was a time when the horse had to be train and automobile and bicycle, but now the stage coach is a novelty reserved for Mr. Vanderbilt and a few like him who still love the horse and have time and inclination to travel slowly.

The swell teams that once crowded Fifth Avenue are almost a thing of the past, driven away by the vile smelling, but admittedly quick and fashionable car, while racing is practically at an end, because it's unprofitable.

This year's New York horse show did win back some of its fashionable prestige, but there is no use disguising the fact that just now at any rate it's "back to the farm" for the horse, and it's once more left to the farmer and countryman to preserve to America an institution that has meant so much to us in the past.

We will take good care of him and have him in better shape than ever when his day returns, as of course it surely will when fashion tires of shooting through the country so rapidly that its beauties are so much blur.

REARING QUICKLY CURED.

The horse when rearing must always come up straight. He can not rear otherwise. Therefore the quick-witted rider, when he finds his saddle-horse rearing should promptly pull the horse's head to the right or the left, thus throwing him off his balance, when he drops back to earth upon his forefeet. This remedy is used in Kentucky by all experienced horsemen, but the rider must act quickly and by pulling the horse's head to one side as soon as he begins to rear the horse is unbalanced and cannot rear.

The rearing horse will repeat his attempt, but the rider simply repeats the remedy until the horse, finding that his efforts are baffled, ceases to try to rear.

Is there any reason why this should be effective only with saddle horses?

A TIP ON TRAINING A HORSE.

The main thing in training a horse is to remember that the walk is the foundation of all the other gaits. If he does not learn to walk well he will also be lacking in the other gaits that commend and give value to horses either for driving or heavy work.

Cough Running for Two Years.

My three-year-old mare has had a cough over two years, caused by distemper, I think, as she had a very severe attack of distemper at the beginning of the cough. In some way it resembles heaves, as she generally coughs as soon as she has finished drinking or exerts herself. She does not breathe long and deep like a horse does that has the heaves. She seems

to thrive and grow well and is sleek and glossy. When she drinks there is a queer noise in her throat and she cannot drink as fast as other horses. She has a running at the nose and the matter is of whitish watery color, not very thick and at times seems to be green, caused by coughing with her mouth full of grass. She has been worked but little and is due to foal. She seldom coughs except after drinking or running. What shall I do?

Examine the nostrils carefully, as sometimes a cough such as you describe is caused by the presence of polypus, (tumor) the removal of which by operation would prove remedial. If no such cause is found clip the hair from around throat and blister from ear to ear with cerate of cantharides; wet all food, when she is in stable; give half an ounce of Fowler's solution of arsenic night and morning and if the cough persists add half an ounce of glyco-heroin.

She has Catarrh.

I have a four-year-old horse that discharges a milk-like matter from his nostrils. He breathes short and fast, and has been that way for about four months. He is in good flesh. I would like to know what treatment to give.

A split or diseased molar tooth in the upper jaw may be the cause of the discharge, in which case the cause should be removed by trephining and recovery should then take place quickly. If the teeth are sound the trouble is chronic catarrh and we would give him a dram of one of the following drugs in his feed night and morning for ten days; then change to one of the other drugs and give that for ten days and so alternate the drugs for periods of ten days at intervals of ten days until recovery; the drugs are dried sulphate of iron; powdered sulphate of copper; iodid of potash. They cannot be safely given to a pregnant mare.

WE HAVEN'T BEGUN TO REALIZE THE VALUE OF ALFALFA.

Alfalfa has been called "the greatest all-round forage plant the world has ever known." Horses, cows, pigs, in fact almost every domestic animal relishes it highly, and a good patch of alfalfa is almost a necessity on every farm. Poultry eats alfalfa greedily; bees collect large quantities of honey from it. It seems, therefore, to be the ideal crop for the farmer.

The chemical composition of alfalfa is as follows:

Protein, the blood, muscle and bone element.....	21.19 per cent.
Fat.....	3.04 per cent.
Nitrogen.....	36.74 per cent.
Crude Fiber.....	29.99 per cent.
Ash.....	9.13 per cent.

As you know Protein is by far the most important element for the sustenance of life. Without protein there would be no life, and when we give below, for comparison, the percentage of a few other most important farm crops, our readers will realize why alfalfa possesses such an immense feeding value.

See about a Manure Spreader at once

A MANURE spreader is one of the best investments you can make. Don't delay.

It keeps up your soil's fertility, makes the manure go twice as far and saves you half the labor.

You are working at a disadvantage when you spread manure by hand. See the International agent in your town and talk the matter over and take a catalog along home with you.

The agent will be able to explain to you the strong features of the I. H. C. spreader he handles.

"Kemp 20th Century"—Return Apron Spreader
"Cloverleaf"—Endless Apron Spreader
"Corn King"—Return Apron Spreader

These machines are all made simple and strong, so that they give the least possible trouble in operation.

They are easy to operate and they handle manure perfectly in all conditions.

They are built to give many years' service. The materials and workmanship are of the best. With any one of the I. H. C. spreaders you will not be laying it up in the shed or driving it off to the shop for repairs every little while.

It pays every farmer to own a manure spreader. It pays to buy the best spreader.

You know the International local agent, handling any of these lines. He will not misrepresent things to you. Go to him for a manure spreader catalog or, if you prefer, write direct to

INTERNATIONAL HARVESTER COMPANY OF AMERICA
(Incorporated)
Chicago, U. S. A.

Amount of Protein in Cereals and Grasses.

Alfalfa	21.19 per cent.
Red Clover.....	15.08 per cent.
Oats	13.00 per cent.
Wheat.....	13.44 per cent.
Sweet Corn.....	13.00 per cent.
Field Corn.....	12.00 per cent.
Barley	11.00 per cent.
Rye	11.00 per cent.
Millet	5.91 per cent.

While alfalfa is a good fattening feed by itself, yet, it is somewhat deficient in carbohydrates, and for this reason it gives the most satisfactory results if mixed with some other feeds, which supply the deficiency.

One ton of alfalfa mixed with two tons of green corn fodder makes a perfect feed for milch cows.

Another common practice is to mix the chopped hay with corn meal and this will make a perfectly balanced ration which is worth more pound for pound, than the original corn meal.

Experiments conducted along certain lines, to ascertain the actual results from feeding alfalfa, either alone or in a mixture, have brought to light marvelous facts. Pigs have gained 150 pounds each from May until October, when turned loose in an alfalfa patch; steers have gained 2½ pounds per day for periods of over 100 days.

It seems as if all domestic animals are only too willing to help convert the offerings of nature in form of alfalfa into money for the practical farmer of to-day.

A farmer called in the office a few days ago who seeded his first alfalfa some five years ago, and even then he did it under protest. He now says that alfalfa is the most valuable crop he has on his farm, and that he has never fed hay that is as valuable for milk cows as he has found alfalfa to be. He also feeds it to his horses, in limited quantities though, and says that it is as good for a horse as it is for a cow.

When quietly making your plans for next season consider your own best interests by arranging for a few acres of alfalfa, if you are not already the happy possessor of a good sized field.

Look After Colts Feet.

Have the feet of all the colts leveled frequently and shaped properly, even if it is necessary to hire an expert horse-shoer to go to the stable to do the job. Faulty action in mature animals is often the result of neglecting the feet when the animal is young.

HOGS

PUSH THE CORN INTO HOGS.

"I believe that corn is one of the most wonderful plants that ever grew and that it is, more than any other plant, the one rendering the greatest service to the producer of pork. For myself, I feed corn heavily as soon as the hogs are large enough to make this profitable; for, after all, it comes down to a matter of profit. In fattening hogs, do not begin to feed a heavy corn ration too early, as this will stunt the pigs. I have seen pigs fed corn almost from the start and the development of their frames was checked in that way. Give the growing pigs a chance to develop good-sized frames, and after the frame is about as large as you want it, put in the carbonaceous feed and begin to put fat on the frame. By that time the digestive organs will have become strong on the proteins that have been fed. I think that a good many of our swine growers lose sight of the fact that the digestive organs and the heart and lungs have to be built up on nitrogenous food and if that kind of food is not given in abundance the internal organs will never be very strong or vigorous, and hence never be in a condition to handle large quantities of food to advantage. I believe that even with the fattening hog it is a mistake to feed an entire corn ration. One that has either clover, alfalfa or skim milk with the corn will make a better gain on the feed than given in any other way.

I would not give the fattening hog much range, though I would the growing pig. The fattening hog should not be induced to work the fat off through the lungs, which he is very likely to do if he has a large pasture to run over. We have to treat the hogs being fattened in a different manner from those being developed in frame or being kept for breeding purposes."

This writer seems to contradict himself. He is a believer in corn and would like us to think he is one of those breeders who thinks the best results come from feeding an all corn ration, and yet as he writes it comes over him that he doesn't believe in it after all, and is too honest to let his first idea run away with his pen.

All corn is not best, and even the almost fat hog needs a change to keep his appetite up to the mark.

Those of us who have eaten pea-fattened pork know how delicious it is, and would like to have our own barrels filled with it. But of course it's expensive.

Another difference in favor of pork from pea or bean-fed pig is that the fat does not fry out so much in cooking, and this of itself makes it desirable for family use.

A GOOD FEEDER AS WELL AS FEED TO MAKE THE HOG.

The successful breeder must be a good feeder. No matter how gilded the pedigree may be, if the pig does not get the right kind of feeding and feed he will not make good.

The capable feeder is responsible

for the high quality and individuality that goes into the show ring and wins the blue ribbons, the sweep stakes and championships.

Of course, there must be the breeding to produce the proper subject to enable the feeder to bring about the desired results. The feeder can not make a good pig out of a poor subject. It must have the qualities inherited from the parents. The good pig, therefore, is the result of a combination of good breeding and good feeding.

No matter how good the breeding and the quality, if the feeder is not competent the pig will be more than likely a disappointment.

There are some breeders who are not good pig raisers either in saving them or growing them from the start. There are others, and among them some of the most successful show fitters, who make a specialty of the pig after it is well started and fed, using all the patience and all the known advantages in handling, exercising and feeding of the best feeds at regular times and in such a way as to produce the best results for the show ring.

It would not seem to be so difficult a task to feed if you have the feed. One man will say if I had a power of attorney on a noted feeder's milk supply I could do just as well, but you can not. The best feeders are born; they actually enjoy the feeding and take as much pleasure in seeing the pigs eating as the pigs do in eating. They would miss a meal themselves for the sake of seeing the pigs eat.

No sour feed, no swill barrel, nor overfeeding—just giving him enough. No irregular feeding. Everything done according to the pigs' requirements for the best results. The feeder who does this is the master feeder.

BECAUSE FEED IS HIGH DON'T SELL THE BROOD SOW.

If you intend to stay on the farm it's foolish economy to sell your implements, and you haven't a better one on the place than the brood sow.

Nature is a great evenner up, and when things seemingly get out of line in one quarter she balances up in another direction.

Hog feed is high, shorts and barley and corn and everything in the grain line, but in steps Mistress Nature with alfalfa and the cost of the ration is balanced again. Not only is it evened up but you have a better feed for the hogs.

The question is, then, how best to feed it. You will have found that it's the last cutting that the hogs prefer; it's so tender. But the last cutting is not so very heavy and some means must be found of serving up the earlier cuttings in palatable shape.

The secret is to grind it into meal, and then it's enjoyed by all the stock, and they thrive on it.

For pigs, mix it with ground oats and corn or other grain.

See your thresher and persuade

him to add an alfalfa grinding mill to his outfit, and it will mean one more avenue of saving and profit for all of you.

Now try this and don't for gracious sake sell our old standby, the brood sow. You'll need her by and by.

NO SWILL BARRELL IN TEN YEARS.

In talking with a successful breeder of hogs about his pigs and their condition, he said he could not remember ever having had a bad case of scours. Sometimes he would discover a little tendency in that direction, but it righted itself naturally without any doctoring.

This is quite remarkable inasmuch as many of the best feeders have a case or two each year, no swill barrel was, in his opinion, the prime factor in preventing scours, combined with very careful feeding.

Be careful about feeding the sows, or feeding anything from a swill barrel. Feed milk as near fresh from the separator as possible. Have plenty of exercise for the sows when they are raising their litters, and see that the litters themselves take exercise whenever the weather is suitable for them to be outdoors. In case of storms or bad weather, be sure they get their exercise in their pens.

Feed regularly as to time and quantity. Always have the feed eaten up clean out of the trough, so that there is nothing left to ferment or become mouldy or sour. This method of feeding, and absence of a swill barrel, he believed to be the cause of his pigs doing so well. The ten years' trial having proven it, this is pretty good evidence of its value.

Disinfect the Pens.

It pays to use a disinfectant in pig pens. An excellent practice is to scatter a little chloride of lime through the pen twice a week, while a few pails of white-wash, to which a small quantity of carbolic acid has been added, will materially assist in keeping the place free from vermin.

The hog is naturally a clean animal if he is allowed to be.



SICK HOGS Cured and disease prevented with Snoddy's Powder. Cures all hogs of worms. Will send man, treat sick hogs, and guarantee a cure. Treatment is simple; any man can use it. Used and endorsed by leading breeders everywhere. Makes hogs thrive in a few days. 55¢ case cur. 50¢ by gs. W. Its for book on hogs. Also reports of public tests, sent free. Agents wanted. DR. D. C. SNODDY CO., Box T, Nashville Tenn.

CATARRH Instant Relief in 1 post hoc cure. Trial treatment mailed free. Toxic Laboratory, 1123 Broadway, New York.

Why Raise Hogs?

There are a number of reasons why it does actually pay to raise hogs. He multiplies rapidly and matures quickly. The pig requires little feed to produce a pound of meat and the market hog is worth good money, cured or fresh. The hog does not require herding and can build up 80 per cent. of his market weight on grass and forage crops.

He is naturally a healthy animal and his only business is to reproduce and turn feed into meat.

There is no need to worry over the dual-purpose hog. You don't have to consider if it is best to raise him for meat or for milk, neither do you have to worry over the question whether it is meat or eggs, or meat and bristles. The hog is raised for meat alone, and when you are driving one crop to market another one ought to be well on its way to marketable condition and weight.

Wheat Straw Best Bedding.

Some of the best know and most successful breeders are emphatic in their assertions that wheat straw is the only proper straw to be used as bedding for young pigs. This seems to be a small matter, but success is achieved by paying strict attention to things that are commonly regarded as trifles.

Here again we old fellows remember we thought nothing so good as pea straw.

Give the Hogs Bone Making Material

Should your hogs grow too thin in bone, do not blame it all to the breed. Remember that pigs cannot grow bone without the necessary material, any more than they can produce flesh and fat without food. See that your food ration contains plenty of phosphates, and keep salt and ashes within reach of the pigs.

Another Way to Cure Pork. Sugar Cured Hams and Bacon.

The meat to be cured should be placed in a tub or vat, and sprinkled with a small quantity of salt over each piece. Let it remain two days, and by that time all the blood that may have been left in it will have worked out.

Then take enough spring water to cover the meat, and for each one hundred pounds of meat take three pounds of coarse brown sugar, one-quarter pound saltpeter, and one ounce each of alum and soda. Dissolve these in water, and add enough salt to make a brine strong enough to float an egg; pour this over the meat, weigh it down with stones to keep it all under the pickle.

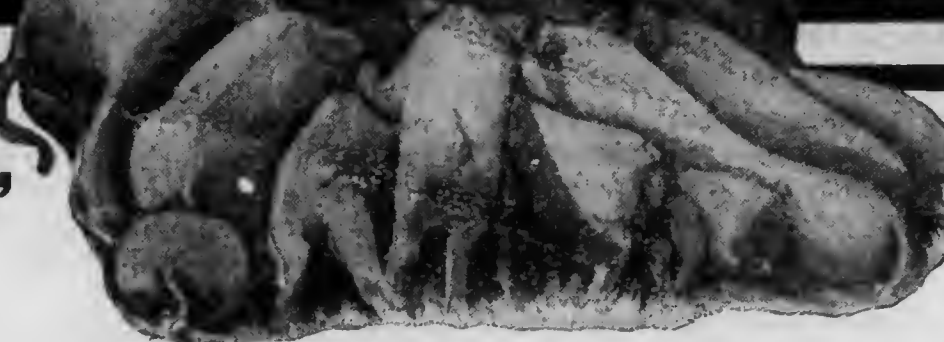
Let stand for thirty days, when it may be hung up to dry, and then smoke for three or four weeks, according to the degree of smokiness desired.

It is said that the Ashland hams, once famous in American markets, were cured in this manner, being smoked four weeks with green walnut wood. Corn cobs make an excellent smoke for bacon, but care must be taken not to let the fire get too hot. Others prefer oak, hickory or apple.

[I am inclined to think half the amount of saltpeter would be better. —Editor.]

JERSEY RED PIGS FOR SALE

"Meal Time"



REDUCTION IN PRICES

To quickly reduce a large stock on hand I am offering my Famous Jersey Red Pigs at the following SPECIAL PRICES, until Dec. 24th. After that date catalogue prices will absolutely prevail:

2 pigs, 8-10 weeks.....	\$10.00.....	regular price \$12.00
3 pigs, 8-10 weeks.....	15.00.....	regular price 17.00
4 pigs, 8-10 weeks.....	20.00.....	regular price 23.00
1 Sow bred, 6 mos.....	18.00.....	regular price 20.00

Quick action will save you money. Write me your wants today. A guarantee of safe arrival goes with every animal shipped, and my reputation is back of every transaction. These celebrated Jersey Reds are growing favorites—small-boned, vigorous, prolific, easy to raise. Jersey Reds are money makers.

Write today for catalogue which tells all about my Jersey Reds.

ARTHUR J. COLLINS, Box X, Moorestown, N. J.

Dry Salted Meat.

If you prefer not to use brine the following method may be used: For 150 pounds of meat take twelve pounds of fine salt, two quarts of molasses (Porto Rico preferred), and half a pound of powdered saltpeter. Mix these together until they are about the consistency and appearance of damp brown sugar. Rub the hams and bacon thoroughly with the mixture, and lay singly on a table in a cool, dry place. At the end of a week rub them again in the same manner, and repeat the operation at the end of the second week. Soon after the third rubbing smoke ten days consecutively.

Absolutely Best Feed for Show Hog?

I have a young boar to which I am feeding one quart of shorts and about a gallon of milk fresh from the cow twice a day. Is there any better ration? I feed him no corn, as I don't want to fatten, but just to grow him. I expect to show him next year and want bone and muscle. I don't care for cost of feed.

Certainly this is a good feed, and as you cannot gauge in quantity one hog with another, the point will be to feed this hog in accordance with his demands. There is no doubt he will do well on this feed, but the question is will he do better on any other feed, regardless of cost.

For instance Mr. Frank Wolgamuth in feeding for the show would doubtless use barley in the place of shorts in whole or part, and he uses some International Stock Food as a tonic to keep the proper conditions of the system and to stimulate the appetite. While Mr. Charlie Wellington buys a feed made very largely from oatmeal in the place of portion of the shorts, and he also uses International Stock Food. We would like to know what some of our readers would suggest as an improvement.

Like Rickets.

What is the matter with my sow. A week ago she went lame in her hind legs. The next day she seemed to be all right, but the day after that

she was again lame and at noon was down and was for two or three days. Now she drags her hind parts when she moves. She had no appetite at first, but now eats all the time.

Her trouble is akin to rickets and is common in pampered, soft, flabby, lard hogs that have been developed on corn and consequently lack bone and muscle. It may come on after a litter of pigs has suckled for a time or it may be brought out by wallowing and exposure to rain and cold. Physic with four ounces of epsom salts in slop. Follow with a light ration of slop to each feed of which add one-fourth part of lime water. Rub loins once daily with a mixture of equal parts raw linseed oil, turpentine and aqua ammonia.

So many of my readers could fill this department so interestingly every month that I feel confident my appeal for articles, incidents and anything of interest to farmers about horses will promptly bring me all I can use in a year.

GREENWOOD STOCK FARMS—

Farmers and Breeders I now have a large stock, probably the best I ever owned, thoroughbred Poland-China and Chester White Pigs, 2 to 6 mos. old, sows bred and boars ready for service, all from prize winning stock. Guernsey and Jersey Cattle, Buff and Barred Plymouth R. Chickens. Farms and Residence, Greenwood, Pa. Address C. H. DILDINE, Route No. 1, Rohrsburg, Pa.

BARGAINS IN POLAND-CHINAS, BERKSHIRES and CHESTER WHITES

I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and sows, all breeds, 2 to 6 months old, mated not akin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochranville, Pa.

BLOODED LIVE STOCK

THE ADVANTAGES OF BREEDING IN COMMUNITIES.

This is a subject that receives by far too little serious consideration. About the best way to secure a man's active interest in any project is to show him wherein it affects his pocketbook profitably. And surely the advantages of whole sections devoted to the same breed of animals are tremendous.

Let us take the Island of Jersey, for instance, the home of the Jersey cow. Do you know that the officers of the Island do not permit any living milk cow landed on its shores. And what's the result? Hundreds of thousands of dollars every year are brought to the Island and left there in exchange for Jersey cattle, that are taken to the four corners of the earth. If every farmer on the Island was raising a different breed of cattle no one would go there to buy milk cattle.

We go to Maine for our seed potatoes, because potatoes are made a specialty in that state, and so on.

So long as each farmer works to himself alone, without thought for the general good of the community, it's certain we cannot expect to get a name as the right section to come to find perfection in any breed. But if we can get together, compare experiences and results, carefully and fully, and, with the advice of our own State Experiment Station, select one particular breed of hogs, or cows, or horses, or poultry, or sheep, and give time and energy to that one breed, working steadily to improve it, one of these days we will wake up famous for this breed, whatever it may be; breeders will come to us from all over the country, to headquarters, for breeding animals to improve their stock, and you can depend upon it they will not haggle over paying a good, fair price for what they get.

Have you ever thought of it in this way? Has your Grange taken it up? The writer is a farmer, and a member of the Grange and has sometimes thought that matters of this kind should be given much of the time consumed in meetings in less profitable ways.

After deciding to carry out such a plan the next step is to secure proper animals as a foundation for your herd or flock. Let us suppose, to make it easier writing, that you have agreed to take hold of Guernsey cattle. Make up your minds to have absolutely the best that money will buy. Don't depend upon the judgment of anyone short of a recognized expert in the selection of your bull. Go to headquarters for it if necessary and import your own bull, but have the best.

Now no one farmer may feel like investing so much money in a bull. Perhaps there is only one of you who ought to be trusted with such a valuable animal. Club together, each contributing so much toward the purchase price, for which you are to receive service to a given amount. The farmer who takes charge of the animal to be compensated in some equitable manner for his keep.

The speed with which you wish to

build up the herd must determine what you do by way of buying cows and heifers.

Get a right start, co-operate earnestly, listen to those of you who know best what's to be done for the best interests of all, and it will not be so very long before your community is written up in the agricultural papers, breeders are attracted, sales made, and you begin making more money than you ever dreamed of, and find another reason for being thankful you are sticking to the farm.

THE RIGHT HOG TO BREED FROM.

"We have done a good deal of talking about the normal hog, and we are very much gratified in knowing that hundreds of experienced breeders are now with us in supporting the proposition that animals maintained for breeding purposes should be developed and cared for on quite different lines from those intended for the block. We took a chance on being misunderstood, when advocating the normal breeding hog; some thought we meant wild hogs; some starved hogs; some that we were promoting the interests of the runts. But we are living through it all, and many now know we are on the right track and are joining hands with us, to promote the best interests of the Berkshire hog. We know, and so does every breeder of experience, that the only way to produce the hardy, vigorous progenitor, is on a basis of work, daily work. Pampering won't grow strong bones as a frame work on which to lay a proper covering of muscle. Confinement and stuffing with fat-giving foods, to give a smooth exterior, will not grow muscle. The vital organs can only be brought to full use, by use."

"If you are buying breeding stock then condition is almost everything. A man who buys a sow by the pound or turns down a good milker, because she does not have four white feet, doesn't know his business. We believe a trained and skillful buyer of breeding stock will always look below the surface, and will select those animals that are in the best condition to go on and perform the functions for which they are intended. There is no use wasting sentiment on the hog. We raise him that we may eat him and that's all there is to it. We desire him to be smooth and healthy before we eat him, and to get such results we must endow him with a good digestion, vigorous constitution, and with the vital spark of life plus; we cannot thus endow him through over fattened and pampered parents."

This is good, vigorous commonsense, from Hon. F. W. Morgan, of Wisconsin, and while he wrote specifically of Berkshires it's equally true of all breeds, and we are heart and soul with every right effort for the fuller and more general understanding of everything for the betterment of our hogs.

If changing conditions indicate

anything it is swiftly increasing competition in every line. In the past you farmers have known comparatively little of what manufacturers have had to face, but it's coming your way.

The one effective way to overcome competition and to do it profitably is to turn out better goods at reduced cost. And in breeding hogs the method is to first own the best that can be had in the way of progenitors, to take care of them properly, and then, when the little ones come, to produce a pound of "quality" meat at the least cost.

Now please read again what Mr. Morgan has said, and make your plans accordingly.

If your tastes run to some other breed don't think you must get rid of your stock and buy Berkshires, though it's a grand hog. An increasing number favors Jersey Reds nowadays. Remember the idea is to be sure your animals are doing for you what they should—test them out as you should the milk cow.

"The only objection I have against the young man, my dear child, is that he has no noble ambition—no high or worthy object in life." "Oh, papa, how can you say so? He wants me."

FOR SALE OR EXCHANGE.

Only Two Cents a Word. All classified. Each initial or number counted as one word. No advertisement taken for less than 25 cents each issue. All replies must be sent direct to advertisers. Cash covering the exact number of words at 2 cents each must be sent with every order. This Department for Live Stock Only.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

FOR SALE—Very handsome trotting mare, in foal to Perry K. 213, \$100. P. J. WYAND, Cumberland, Md.

CATTLE.

PURE-BRED Registered Holstein bull calf. Dam's record 15.34 lbs. MADISON COOPER, 101 Court, Watertown, N. Y.

PURE-BRED Holstein Bull Calf. Eligible for registration. Also high-grade bull calf. MADISON COOPER, 101 Court, Watertown, N. Y.

HOGS.

FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$13 to \$20. 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. WM. HARSHMAN, Thurmont, Md.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsbury, N. Y.

FARMERS.

Send 50c in stamps for 6 months' subscription for the Horse News and Speed Bulletin. Finely illustrated paper. And receive three valuable formulas free—Bone Spavin Cure, Heave Cure and a good Hair Grower—all genuine. Address P. J. WYAND, Cumberland, Md.

Description of the Footh-and-Mouth Disease.

This disease is fortunately so rare with us that few farmers know the symptoms, but inasmuch as three great States are quarantined it is wise for us to get all the information we can, so as to be constantly on the watch against its advance.

Dr. Leonard Pearson and other eminent veterinarians are agreed upon the main characteristics of the foot-and-mouth disease. In Europe it is also called the murrain, and the principal scientific names for it are eczema, epizootica and apthous fever. It is highly infectious. Its identity is determined by the eruption of vesicles or blisters in the mouth, around the coronet or top of the foot or hoof, in the cleft of the hoof and (in the cow or she-goat) on the udder. It is most common in cattle and swine. The human species is also susceptible to it, but rarely to a serious degree.

The specific cause of apthous fever has not been clearly demonstrated. The virus is contained in the eruptions. Authorities say that the cause is presumably a germ. If that is the case, the germ is so small that it will pass through a Berkefeld water filter. The infection may be indirect through the stables, the straw, hay or other objects with which diseased animals have come in contact. The virus may be carried by an animal several months after it has the disease and recovered from it.

The period between the moment of infection and that when the eruption appears is from 24 to 72 hours. The symptoms vary greatly in different epizootics, being sometimes quite mild and at other times severe. The first evidence of its presence is a rise of temperature, which in cattle rarely goes beyond 104.

The mucous membrane of the mouth becomes reddened, the appetite is diminished and the rumination or chewing of the cud ceases. The eruption appears two or three days later. In eight or fourteen days the disease may have entirely disappeared.

From the eruption on the feet or hoofs there is viscid exudation, and the animal is subjected to so much pain that frequently it moves about on its knees. This is especially true of sheep. The effect of the disease on any animal is to cause it to become extremely emaciated, and, even if it recovers promptly, greatly to lessen its value.

STAMPING OUT CATTLE FEVER

Federal and State Authorities Working Together.

Secretary Wilson is personally on the ground and the Federal authorities are working hand in hand with the State Veterinarians of New York, Pennsylvania and Michigan to crush out the disease as rapidly and thoroughly as possible.

The trouble is pretty general throughout the Western counties of Pennsylvania and New York and rapidly working east. This week a case

Don't Saw off Horns
It's true. Any man can use Key-stone II shorn. It makes clean, smooth cut. No crushing or tearing. Done in a minute. Sold on money-back guarantee. Book free.
3.7 Phillips Box 21, Pomona, Pa.

has been discovered in a herd at the doors of Philadelphia. A few miles from Detroit several infected herds were discovered and promptly destroyed.

There isn't time now to figure out just how the disease got here, the business of the minute is to trace out every affected case, slaughter the animal, and by thorough disinfecting and fumigating destroy the germ that causes the terrible infection.

The East Will Not Show at Chicago.

Cattle breeders of the State of Pennsylvania and New York will not be permitted to exhibit any cattle at the International Stock Show to be held at Chicago, owing to the prevalence of the mouth and foot disease in those States. This decision was reached on the 23rd, at a conference held at the White House, between President Roosevelt and Willet M. Hays, Assistant Secretary of Agriculture, and Dr. Alonzo D. Melvin, Chief of the Bureau of Animal Industry. The decision includes sheep, swine, and goats.

On the same date in Springfield, Ill., acting on recommendations made by the Illinois State Board of Livestock Commissioners, Gov. Deneen issued a proclamation prohibiting importation of live stock from New York, Pennsylvania, and New Jersey.

Dr. J. M. Wright, State Veterinarian, says that the disease can be communicated from an infected animal to a human being.

British Government Takes Action.

The Government of Great Britain is ever watchful for the protection of its herds and flocks against importation of disease, and on the first report of trouble in this country the Board of Trade immediately prohibited the landing of cattle or fodder from New York and Pennsylvania.

So far the restrictions have been confined to these States but will be instantly extended if it seems necessary.

The Canadian officials report that there is not a single case of mouth-and-foot disease within the borders of the Dominion.

LIVE STOCK NEED CLEAN QUARTERS TOO.

Human beings are wonderfully like cattle and other live stock; or, to put it in another way, the live stock in the barnyard are in many respects wonderfully like the inhabitants of the farm home. If either is to be healthy it must have a plentiful supply of pure air. Neither can thrive without sunlight. Both of them are the prey of bacterial diseases. The girl reared in an unsanitary home will be delicate. The boy who is not out in the sunshine daily will never grow up to a vigorous manhood. Darkness is death; sunlight is life, whether in the stable or the house.

Every now and then someone rises and asks: Why, when the power of life and death over live stock is in the hand of man, are not diseases such as tuberculosis banished from the farm? They seem to forget that these diseases are spread largely through unsanitary conditions. They forget also that in the home among human beings as soon as the doctors are able to control one form of disease an-

other form puts in its appearance. Nature is never at a loss for means for killing off weaklings; and the great aim both in the home and in the barn-yard is to develop vitality. This can be done only by furnishing the conditions that are necessary to vitality.

We hear a great deal nowadays of the impurities in milk, and the demand is very much decreased, or at least is not as great as it should be, because of these suggestions of unsanitary conditions. There is a demand in the cities for the testing of all herds of dairy cows, and the slaughter of animals that react. They seem to forget that the spread of this disease is determined almost entirely by the sanitary conditions, and that if every tuberculous animal were wiped out from one city or county, and the unsanitary conditions maintained, it would be a very short time until it would reappear.

The place to begin anything is at the commencement; and the commencement of this reform should be in providing for every home an abundance of pure air, sunlight and nutritious food. This being done, the work of eradicating tuberculosis, while difficult, as it must always be, would be comparatively easy.

Drag Hind Legs.

My pigs seem to have weak back or kidneys. They drag their hind legs on the ground and when they walk put one leg barely in front of the other, and their backs are all humped up.

When this trouble cannot be attributed to a local injury to the spinal cord, it is almost always due to over-feeding in young, growing animals, especially pigs, which have corn for a part or all of their grain ration. Change the feed to milk, and light, easily digestible food, and apply turpentine to the spinal region from the middle of the back backwards, once or twice a week until relieved.

LET US TAN YOUR HIDE,

Whether Cow, Steer, Bull, or Horse Hide, Calf, Dog, Boar, or any kind of hide or skin, soft, light, smooth and most-proof for robes, rug coats or covers, and make them up when so ordered. If it first get our illustrated catalog, with prices, shipping tags and instructions. We are the largest custom fur tanners of large wild and domestic animal skins in the world. Distance makes no difference whatever. Ship three or more skins or horse hides together from any where, and Croshaw pays the freight both ways. We sell fur coats and gloves, do taxidermy and book binding.

The Croshaw Fur Company, Rochester, N. Y.

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Is the one which, bought at the right price, gives you the best service, lasts the longest, causes you no trouble. **NATIONAL FIELD AND HOG FENCE** is just that kind. Made of heavy, single wire, an in-comparable lock close mesh, as strong as a stone wall. Don't buy a fence until you have written us about this and our RANGER Barb Wire—a heavy, single wire with rotary barb. Tell us what you require and we will name you delivered price. **REVOLVING BARB WIRE**

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OUR FEATHRED FRIENDS

THE PHILO SYSTEM OF PROFITABLE POULTRY KEEPING.

The new system advocated by Mr. E. W. Philo, of Elmira, N. Y., upsets nearly all the old theories in regard to profitable poultry keeping. At the same time there is not much in the system that has not been known to chicken raisers for generations, but Mr. Philo was the first to marshal all the points, thoroughly prove their efficiency, and then weave them into a system.

Mr. Philo's system is particularly adapted for the city lot. It is too "fussy" to ever come into popular favor with large poultry farmers. Where the ground available is limited, however, it makes possible the maximum results.

The first feature of the system which strikes a visitor to Mr. Philo's plant is the construction of the houses—or rather boxes—in which the poultry is kept. The laying coops occupy a space six feet long by three wide, and are a couple of feet high. The cover is hinged on, and may be raised or lowered as the weather conditions warrant. Under this hinged roof is a cheese cloth covering on a frame to admit fresh air at all times and prevent sudden gusts of wind striking the fowls. Half of this coop is floored and covered with litter, the other half is earth, which is kept stirred up constantly and grains are dug into it. These the fowls scratch for and are kept busy. Then there is a nest, and a removable roost. This is the laying or breeding coop now in use on the Philo plant, and is much more simple than, and costs less than half, the original coop advocated by Mr. Philo.

In these coops not more than five hens and a cock are kept. In his best pens, Mr. Philo has only four hens with the male. When the hens are being kept for egg production only and not as breeders a hen can be placed in the coop in the room of the cock. The fowls are never allowed out of these coops, and seem perfectly happy and contented therein. They certainly shell out the eggs.

Another feature is the fact that chicks are raised without artificial heat. The youngsters are taken from the incubator and placed in a "cold" hover, 20 or 25 of them. This is a box six feet by three feet, and one foot high. In one corner is a round galvanized iron hover, the only opening to which is the little door through which the chicks enter or leave. In there they may go when cold and their own heat supplies all the warmth required.

"You can never convince me that chicks just hatched can be raised, and produce healthy grown stock, unless given an artificially heated hover in lieu of a mother hen," said an old breeder, after reading Mr. Philo's book the other day.

But Mr. Philo does it regularly, and he has the birds on his place, summer and winter, to prove it.

The selection of the breeding stock, the constant care as to hygiene and

feeding, and the introduction of fresh air at all times to the coops are essential features of the system.

The figures which Mr. Philo names as his net profits are correct—\$1,500 from a lot 40 feet square. Mr. Philo lives right in the centre of the city of Elmira, within a stone throw of the Court House, and in his back yard, in the last eight months, he has sold over \$1,000 worth of poultry.

"What I have done with my poultry can be duplicated by any person who will follow the directions laid down in my system-book, and will give the poultry the care that is necessary to keep them clean when they are closely confined," said Mr. Philo to the writer. "People have been very skeptical about accepting my statement of the profits I made and I do not blame them," he continued, "for my experience is very different from that of other poultry dealers as far as the ratio of profits is concerned, but I am prepared to demonstrate to anyone who will come here that I have understated rather than overstated the figures."

timely how his first flock of nine hens averaged seven eggs during January and February but when the flock was increased the ration of eggs received dropped very materially.

It means constant application, it means incessant work, and it means a keen business sense. Mr. Philo has turned everything to account.

IMPROVEMENT OF THE FLOCK BY SELECTION.

Increasing the egg producing capacity of a flock requires selection. The mistake made is not in the selection of the hens, but of the male, as he is the sire of all the chicks hatched. Eggs from the best layers only should be used for hatching, and the male should be hatched from an egg laid by the best hen in the flock, using only pure-bred fowls, and avoiding kinship if possible, as prolificacy can be transmitted to the progeny.

If this rule is adhered to there will be a marked improvement in the number of eggs laid by each member of the flock. The difficulty is to discover which hen in a flock lays the largest number of eggs. This cannot easily be done, except by watching the hens, which is impossible; but the difficulty is lessened by using small flocks, as then the hens are known. One method is to have the nests in a location so arranged that after a hen lays she cannot get back into the yard from which she came, but must pass out of an entrance leading into another yard. At night all the hens that have laid will then be together, leaving the others in the first yard.

HENS MUST HAVE FRESH AIR.

Fowls are obliged to throw off much of the body waste through the lungs. They do not sweat in the sense that do other animals, but, instead, breathe several times faster than sweating animals when heated.

To keep in good health a hen requires nearly seven times the amount of fresh air in proportion to its size as does a horse, and yet as a general thing you can throw your hat through the horse stable almost anywhere, but the hen house is so tight that the stench when first opened up in the morning is enough to knock you down.

None of us get too much fresh air, and none of us are apt to forget that cold air is not necessarily pure.

HOW TO FATTEN FOWLS.

A fowl should always be fattened as quickly as possible. Ten days is long enough, but it should be confined, either in a coop or a number in a small yard. They must have a considerable supply of fresh water and should be fed four times a day, the first meal being given early and the last one late. A recommended mixture is three parts cornmeal, one part ground oats, one part bran, one part crude tallow, the entire lot scalded, and fed for the first three meals, with all the corn and wheat that can be eaten up clean at night. Weigh the articles given or the proper proportion will not be given.

Feed Lots of Clover and Alfalfa.

Hens need bulky food. Clover hay, or alfalfa, cut in half-inch lengths, helps to make an ideal ration. If cooked and mixed with bran it makes an excellent breakfast. Clover and alfalfa not only promote digestion, but also largely assist in supplying the elements necessary for the albumen.

BIG MONEY IN FRESH EGGS.

Better sell honest eggs—eggs that you can guarantee fresh. Remember that after three days of age an egg is no longer strictly fresh. It is necessary to date them the day they are laid to be sure of the age.

Next month we will tell how an egg farmer in New Jersey handles his hens to make a net profit of over \$5.00 a hen from the sale of eggs for table purposes alone. This is no fairy tale either.

Eggs are like butter in that there is never sufficient supply to fill the demand, and in either case one bad lot is generally enough to shake confidence in your supply, if it does not lose the customer for you.

Each year finds the practice of spraying more and more firmly entrenched in the programme of the intelligent grower.

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THE RECORD FOR EGGS.

240 in 274 Consecutive Days. Mr. Walter J. Clark, of this town, has a hen that has laid 240 eggs in 274 consecutive days. Mr. Clark thinks this is the record, as one of the farm journals recently stated that 236 eggs within a year was the egg-laying record.

Mr. White's hen will be three years old in February. In that month, 1906, Harry E. Custic bought some eggs of the Danville poultry show and put them in his incubator. In the regular course of time they hatched out and he sold one of the chickens to Mr. Clark.

In order to keep the hen on her nest Mr. White built a trap to hold her in until she had laid her daily egg.

We clipped this from a Danville, Indiana, paper. What do you think of it? We showed it to an old time chicken friend of ours and he said "Mr. Clark must show me."

HOW TO TAKE CARE OF TURKEYS IN THE WINTER.

Turkeys should be closely housed during the winter. The more we try to domesticate and confine them, the more susceptible they become to disease. Even in most severe winter weather, turkeys should be allowed to roost out of doors and forage as widely as they please. There is only one sort of weather from which it is advisable to house the birds. This is the wet, sleety weather, when snow or ice may cling and freeze to their plumage. When such a night seems likely, gently drive the whole flock into a large, roomy shed kept ready for the purpose. Next morning bright and early let them out, feed them, and let them roam again. But if the nights are dry, no matter how cold the season, let them roost in the air, away up in the branches of the large trees near the barn.

Turkeys are very different from other farm fowls. They are brought to the most prime condition when allowed the most freedom. They should no more be forced to eat and drink with chickens and ducks than horses should be obliged to feed with hogs. They should be fed at the barn, daily, but be more or less free to forage in the corn lot, the grain field, and the meadow and wood lands, if not too far from home.

This is the only way to raise turkeys successfully. He is, you know, still practically a wild fellow.

DUCKS ARE EASY TO RAISE AND MAKE GOOD MONEY.

Those who raise ducks say they are decidedly more profitable than hens, but the chicken breeder will be just as emphatic that they are not.

Whatever our own individual tastes may be it is a fact that duck raising is very profitable provided we know how to grow them.

Duck raising has developed within the last 20 years into a flourishing industry. Prior to this the duck was not considered a profitable fowl to raise. Its flesh was not in general favor, on account of its being obliged to pick up its living as best it could along the creeks and marshes, living

ONLY 50¢



PURITAN POULTRY REMEDIES

Diseases of the Digestive Organs, and Intestinal Troubles need not frighten the poultry-keeper nor send him running the first thing for the ax.

Many a fine fowl has been saved for further usefulness and profit to its owner, by the use of a simple remedy promptly administered.

We manufacture remedies for treating Cholera, Dysentery, Diarrhea, Bowel Complaint, Roup, Indigestion, and all the other ailments common to poultry.

THESE REMEDIES ARE SUCCESSFUL

and accomplish effective work. Full and complete directions accompany every package, and if used according to directions, and promptly employed at the first sign of the trouble, we guarantee results, or refund your money. Puritan Poultry Remedies will cost you only 50c per vial, and may save you as many dollars by preventing the spread of infectious diseases among your birds. Sent prepaid on receipt of price.

Write for free circular containing valuable information on poultry diseases.

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mostly upon fish and water insects, and of course this gave the flesh a strong fishy flavor.

But ducks respond very rapidly when handled for a profit. They are very heavy feeders and will grow twice as rapidly as chicks. On account of the duck being without a crop the food passes directly to the gizzard, and consequently the food must be in a mushy state. Soft food, together with grass, and vegetables, and animal food, is their natural diet.

Hard grain in too great quantities does not agree with ducks and they will not thrive on it. To produce best results the food must be such as will be easily assimilated. From time of hatching to five days old the following mixture is all right: Crackers or bread crumbs and corn meal, equal parts; hard boiled eggs about 15 per cent.; sand about 5 per cent.; mix with water or milk and feed four times a day. From five to twenty days old feed wheat bran two parts, corn meal one part, beef scraps 5 per cent., sand 5 per cent., green food 10 per cent.; mix with water and feed four times a day. The hours for feeding ducks are 6 a. m., 10 a. m., 2 p. m., and 6 p. m.

When feeding always replenish the water trough with pure fresh water, as a duck while feeding will take a few mouthfuls then go to the trough for a drink.

The amount of feed varies as does their growth. The growth should be about one-half pound a week; then, as it increases they require an additional quantity of food. Feed each meal what they will eat clean with a relish. It is better that they should have not enough than to overfeed them.

Houses for ducks are simple affairs; they have no furnishing whatever. A duck is differently constituted from a hen and must be cared for under different conditions. The hen needs dryer, warmer surroundings. A duck

can keep her feet warm. Cold feet does not mind the cold at all if she will affect a duck as a frozen comb does a hen, retarding laying and inducing ailments. The duck cannot stand the amount of confinement in a house that a hen can, as she is more restless in disposition. Her ceaseless motion aids the digestive organs and keeps her in good health.

There is quite a number of different varieties of ducks, but none better for the farm than the White Pekin. They are easily raised and are considered among the best for table use. They are very large, some reaching as high as twenty pounds a pair.

When handled and fed properly ducks are quite profitable. They have fewer diseases and are not affected with vermin.

Another Reader Says "Keep Some Geese."

Geese should not be permitted to have the freedom of the farm. They will foul more food than they will eat. A bog meadow is the place for them, or any rough pasturage that is accessible to water. A small number will take care of themselves during the summer with very little if any grain. They are equal to horses and cattle as grazers. Timely cut corn stalks, clover and vegetables should be the main winter food. They will prove better breeders in the spring if not much grain is given them. A building with a good roof where they can get in out of the wind and storm and have their feet dry is about all the shelter they require.

We haven't all bog meadows but we can find a piece of grass large enough to raise a few geese for our own eating, and they certainly are good in the winter, and so little expense and trouble to raise. Two geese and a gander can't hurt very much of the pasture, and you'll have a few profitable dollars worth to sell around Christmas time.

TOO MANY FARMERS STILL OVERLOOK SPLENDID PROFITS IN POULTRY.

Conditions are changing, however, as the farmer catches a glimpse of his opportunities and it will not be long before the poultry business will become one of the leading farm industries.

Statistics are never dry when we can see a personal significance in the figures presented. In his last annual report Secretary of Agriculture Wilson makes the assertion that the revenue from poultry amounts to the remarkable sum of six hundred million dollars in a single year. This puts poultry in the fifth rank of our agricultural products, and so rapidly is the amount increasing from year to year that it seems safe to predict that in a short time it will rank still nearer the top.

Ninety-five per cent of the poultry products of the country are produced on the farm, on most of which it is still a side issue, it can readily be seen what would be the enormous increase if the farmers regarded poultry as important as their cattle or hogs. The farmer as a rule could keep four times the number of fowls he now keeps and still find a market at increasing prices for all the poultry and eggs that could be produced.

A careful review of the market reports for a number of years shows that in New York City there has been an almost regular increase in the price from year to year, showing that the demand for poultry and eggs had increased more rapidly than the supply. Now it will not be long before this country will have reached the limit of its capacity to produce beef, pork and mutton. This will bring the prices of these meat foods higher, and thus the demand for poultry and eggs will be greater in the future than it ever has been in the past.

There are far too many farmers who still look upon poultry as, oh, well, chickens kind of go with a farm, and are well enough for the women folks and the "kids," and are blind to the fact that poultry is positively one of the most profitable lines he can give his time to. Just think of the advantages the farmer enjoys. Plenty of room, generally available buildings, and grain, clover and alfalfa at first cost.

We are not, however, one of those pessimistic publishers who thinks he's failing in his duty if he does not keep continually harping on the shortcomings of the farmer, and who would consider that he was getting childish if he admitted any real progressiveness in our "knight of the plowshare."

We know our fellow country friends (the editor, remember, "grew" on a farm and lives there still) are among the most go-ahead and aggressive men and women in our whole land, and defy contradiction. Someday, if you wish it, we will write an editorial on what those who have an opportunity to take a sort of bird's eye view of the farmer sees, but now, let's get back to our subject.

There is every encouragement for farmers to make poultry-keeping a special matter. And since they have found out for themselves that well bred horses and cattle, sheep and hogs, pay royal interest on money invested, they will soon discover that

it is equally profitable to keep pure-bred poultry. If all farmers should sell their mongrel fowls and replace them with pure-bred stock the result would be an increase of fifty per cent in the profits the first year.

Pure-bred fowls cost no more for food and shelter, while they give much better returns, to say nothing of the satisfaction in flocks uniform in kind. With good stock, good houses (not necessarily expensive ones), and proper care, the returns from the amount of money invested are larger than with any other class of stock. There is also the fact to be considered that there is less risk in keeping poultry than with any other kind of stock. When properly taken care of they are not liable to serious diseases, and in every case where a severe epidemic breaks out it may be traced to some preventable cause.

It has been said that the poultry business is the largest "little" business in the country. It can be made to yield a profit on the smallest amount of capital invested. No other can be started on next to nothing and made to grow into satisfactory proportions.

And properly looking after the poultry need not prevent the farmer attending to the other farm work, as much of the detail can be looked after by the women and children.

Possibly the ladies may object, but not seriously if you make a fair bargain, a just division of the profits. Something like this for instance: Deduct from profits first a fair charge for all food. Then you do the cleaning and spraying and heavier and dirtier work as your share of the labor, the rest to be attended to by your wife, or at least to be in her charge. The balance of the profits to be evenly divided, one-half going to general expenses, the other to your wife absolutely with the understanding that she is not expected to clothe herself or children or pay for the groceries, of use it in any way that is unfair. It is her pocket money for the purchase of "extras." She will know what to do with it, and we can guarantee if uninfluenced by you in spending it, she will be a happier and more contented woman, and you will all feel the benefit of it.

Of course conditions vary, and when there is need of all the funds going one way, for the benefit of all a little later, our good wife will be the first to insist upon it.

Is it foolish nowadays to talk of mortgages? Are they all wiped out? You and I know they still haunt too many of us. Chickens are the greatest little mortgage lifters you ever knew.

Another suggestion is to use, say half the profits, to buy a cream separator.

Each year finds the practice of spraying more and more firmly entrenched in the program of the intelligent grower.

FREE DEAFNESS CURE.

A remarkable offer by one of the leading ear specialists in this country, who will send two months' medicine free to prove his ability to cure Deafness, Head Noises and Catarrh. Address Dr. G. M. Branaman, 1648 Walnut St., Kansas City, Mo.

Fruits and Vegetables

DEVELOPING STRAINS OF PLANTS THAT WILL RESIST DISEASE WITHOUT ARTIFICIAL HELP.

This is a subject that is as old as the first plant, and the grains and other plant life of today are those that have been able to fight their way through the centuries, lately with the strenuous help of man.

There have always been diseases of plants and always will be, but somehow or other, under the guiding hand of an all-wise Providence, the varieties continue to exist. They have their ups and downs but are not finally crushed out. It is an intensely engrossing study and the following jottings from a lecture by Prof. Jackson, of Delaware Agricultural Experiment Station, are always interesting.

"Disease-resisting quality must not be confounded with hardness. Under certain conditions a crop may be healthy; under other conditions unhealthy. Certain diseases of plants may be prevented by spraying plants. Apple and potato plants must nearly always be sprayed to secure a healthy crop.

It is necessary to have disease-resisting plants for two reasons. In the first place spraying is a necessary nuisance; secondly because spraying is not usually profitable on a small scale; and, third, there are some bacterial diseases which cannot be cured by spraying.

Selecting Seeds.

Selecting seed is the first thing to develop the most healthy and disease-resisting plants. Use the best seed from the most healthy plants; and then from the most healthy plants raised from this seed, and continue this for generations. Then healthy plants may be taken from a district which has had diseased plants, selecting seed from the survivors. Selection of varieties is another method, those which have the greatest resistant qualities being taken. Sometimes these are not the best commercially, but by hybridizing and crossing the resistant varieties with those which are good commercially a desirable resistant variety is developed.

Speaking of what has been done in this country, Professor Jackson said that while it would be impossible to spray a wheatfield for rust, selection of seed has practically developed a va-

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riety which is not apt to be stricken with rust.

Blight Resisting Potatoes.

In Europe blight-resistant varieties of potatoes have been developed, and investigations carried on with a view of preventing scab in potatoes. Work is now being carried on to prevent blight in cotton, cow peas and clover with very satisfactory results.

Little has been done in this country with fruits. It is only a short time since horticulturists began the work of developing disease-resisting varieties. It has been found that there is a great difference between the disease-resisting varieties of the same plants, and in the study of the peach yellow it has been discovered that there are differences between individual trees under apparently the same condition.

It has not been definitely shown that a plant grafted on a disease-resisting variety will be disease-resistant itself, but there is evidence to support this view. The speaker said that the organisms of disease seem to vary in intensity and plants grown without respect to conditions appear to be less disease-resistant than formerly. There are certain kinds of parasitic fungi which attack only certain varieties of plants. It has been said that disease resistant varieties are inferior. This is sometimes true, but not always, and we can hybridize with other and better varieties which are non-resistant. One of the great difficulties, however, is that plants have several different diseases, and these cannot all be cured at once. We are not sure that the development of disease-resistant plants, carry it as far as we may, will be of permanent value, but it appears to be in the right direction.

Some of the greatest scientific discoveries have been literally stumbled upon, but almost invariably after years of study, research and experiment along certain fixed lines of work, and this leads us to the opinion that our agricultural experts will eventually develop something startling in the line of Disease Resisting Plants.

Some Good Suggestions on Pruning. Pruning is a natural process. Hundreds of small limbs on the trees die every year and thousands of buds perish before they have an opportunity to develop into branches. This is nature's simple method of pruning, and she never interferes with the natural shape of the plant nor takes off larger limbs, leaving immense scars to heal over or long stubs to die back.

Man, following nature's example, modifies her methods according to circumstances, and object to be accomplished. It is impossible to prune a given tree and to prune all the rest exactly the same; for there are no two trees alike and the very next tree may be so unlike that it will have to be pruned quite differently. The operator should, first of all, know what he is to prune before a single limb is cut off. He should study carefully the tree in front of him and then proceed to accomplish the particular object in view.

In pruning, it is well to keep in mind not to remove any more limbs than are absolutely necessary and to avoid, as much as possible, removing very large branches. The larger the limbs removed the larger will be the wounds and the longer these will take to heal over. The healing of the wounds is done by the cambium layer, which is the active growing tissue of the plant cylinder, pushing itself over the scar mainly from the upper side. If the wound is small it will heal over during the growing season; if it is large it may take one or more years. The longer the wound remains exposed the more the wood will crack and dry out.

THE WINTER VEGETABLES. Many a man buys good seeds, works and fusses over his garden all spring and summer, raises a fine lot of vegetables, but, as soon as he puts them away for the winter, seems to lose interest, and as a result, through pure carelessness, half the things rot. This is one of the peculiar facts that cannot be explained, except that our interests do not all run in the same direction, and frequently do not extend quite far enough for our own good. Of course, none of our readers are afflicted this way, and every week a few hours will be spent in the vegetable cellar or out house, sorting over or cleaning out the spoiled potatoes that soon start a couple more nearby to rot, cutting off a slimy cabbage leaf that soon fouls the whole house.

Be thinking about the hot bed sashes. Get the broken glass replaced, and don't forget that a coat of paint will make them last longer. If the frames need repairing, don't wait until next month.

Pruning is still in order. In this number we are giving quite a little space to pruning; there won't be room for it a little later when we get nearer to the gardener's busy season. Its simply amazing how time slips around so let's do today what we'll not have time to do to-morrow.

IMPOSSIBLE TO GET ALONG NOW-A-DAYS WITHOUT A DICTIONARY. And the Best Is Not One Iota Too Good for Any Household in the Land. The growth of the English language, especially within the last twenty-five years, has been amazing. Every new invention or new discovery in science or art, adds its quota of new words. A few years ago Chauffeur and other automobile terms were unheard of; Coherer and Wireless Telegraphy were in the realm of the impossible; the Boxer was not

known outside of China; Imperialism in its modern sense had not troubled the statesman.

Now these words are in the mouths of every one but are often used with no adequate conception of their meaning.

Twenty-five thousand new words were recently added to Webster's International Dictionary to cover this new growth and it is now thoroughly abreast of the times.

Of the new edition, Honorable Andrew S. Draper, LL. D., Commissioner of Education for the State of New York, says: "The new edition 'brings the work sharply up to the present time. It is fortunate that the master mind of Commissioner Harris has been brought to its aid. His philosophic thought, his learning, and his experience, have given added value to a great work which had a value beyond compute even before. It carries authority everywhere and is entitled to a place in every educational institution and every good home."

A CHRISTMAS CAROL. God rest ye, merry gentlemen, let nothing you dismay. For Jesus Christ, our Saviour, was born on Christmas day.

The dawn rose red o'er Bethlehem, the stars shone through the gray. When Jesus Christ, our Saviour, was born on Christmas day.

God rest ye, little children; let nothing you affright, For Jesus Christ, our Saviour, was born this happy night.

Along the hills of Galilee the white flocks sleeping lay. When Christ, the child of Nazareth, was born on Christmas day.

God rest ye, all good Christians; upon this blessed morn, The Lord of all good Christians was of a woman born.

Now all your sorrows He doth heal; your sins He takes away, For Jesus Christ, our Saviour, was born on Christmas day.

Feeding Rye to Hogs. We are asked what to mix with rye to make a good pig feed. If you have skim-milk ground rye and corn make an excellent combination. Without milk middlings and rye are better because of the high percentage of protein in middlings. Where barley is cheaper use it instead of corn.

What do some of our old-time feeders think of this?



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INSURES BIG CROPS

HOME BEAUTIFUL

WHILE SHEPHERDS WATCHED THEIR FLOCKS AT NIGHT.

Like small curled feathers, white and soft,

The little clouds went by,
Across the moon, and past the stars,
And down the western sky;
In upland pastures, where the grass
With frosted dew was white,
Like snowy clouds the young sheep
lay

The first, best Christmas night.

The shepherds slept; and, glimmering faint,

With twist of thin, blue smoke,
Only their fire's crackling flame
The tender silence broke—
Save when a young lamb raised its
head.

Or, when the night wind blew,
A nesting bird would softly stir
Where dusky olives grew.

With finger on her solemn lip,
Night hushed the shadowy earth,
And only stars and angels saw
The little Saviour's birth;
Then came such flash of silver light
Across the bending skies,
The wondering shepherds woke, and
hid

Their frightened dazzled eyes!

And all their gentle sleepy flock
Looked up, then slept again,
Nor knew the light that dimmed the
stars

Brought endless peace to men—
Nor even heard the gracious words
That down the ages ring—
"The Christ is born! the Lord has
come,

Good will on earth to bring!"

Then o'er the moonlit, misty fields,
Dumb with the world's great joy,
The shepherds sought the white-wall-
ed town

Where lay the Baby Boy—
And oh, the gladness of the world,
The glory of the skies,

Because the longed-for Christ looked
up

In Mary's happy eyes!

—Margaret Deland.

A MERRY CHRISTMAS.

Let us be cheerful and happy on this
one particular children's day of all
the year. Meet everyone with a
smile, a hearty handshake, and a
"Merry Christmas."

What if the tots do get up a little
early to see what Santa Claus has
brought them, and raise the roofs
with shouts of joy? Remember how
dear it all is to them, catch the spirit
of the day and be as young as they.

The editor of Blooded Stock, wish-
es all his readers the merriest of Mer-
ry Christmases.

CHRISTMAS.

Although no day is looked forward
to with such joy and happiness as
Christmas, few of us know anything
more about the day than that we
keep it in memory of the birth of
Christ, and have a Christmas tree,

or hang up our stockings, for the ex-
change of gifts which "ood, old, jolly
Santa Claus, or Saint Nick, of course,
brings along with him from his snowy
home at the North Pole.

Consequently it won't do us any
harm to know a little of the history
of the day.

The institution of Christmas, Kris-
mas, Christ Mass, or as it is spelled
in Old English, Christe-Masse, can
be authenticated as far back as the
time of Emperor Commodus in 180-
192. In the reign of Diocletian, 284-
305, while the ruler was keeping his
court at Nicomedia, he learned that
a multitude of Christians was as-
sembled in the city to celebrate the
birthday of Jesus. The Churches
were filled, he ordered the doors bar-
red and then set fire to the buildings
and every worshiper perished in the
flames.

There was no special uniformity in
the day set aside for the celebration
of the Nativity among the early
Christians, some put it in May, oth-
ers in April, and still others in Jan-
uary, but finally December 25th was
established arbitrarily, though, as a
matter of fact, Christ was probably
not born at that season of the year,
in Judea.

The fact that had most to do with
fixing the celebration on December
25th, was that almost all heathen
nations regarded the Winter Solstice
(the time of the year when the sun
is at its greatest declination), as the
beginning of renewed life and activ-
ity of the powers of nature, and of
their gods, who originally were mere-
ly symbolical of these nature powers.
On this account the Celts and Ger-
mans, from oldest times celebrated
the season with great festivities, hold-
ing their Yule-feast in commemora-
tion of the return of the fiery sun-
wheel.

Many of the customs and feasts of
these old German and Roman heathen
passed into Christianity, purified and
adapted by the Church for the cele-
bration of the Nativity. Manger-
songs and Christmas carols sprang up.
Later the Christ-trees, or Christmas
trees, adorned with lights and gifts;
the custom of giving and receiving
gifts; special meats and dishes, such
as Christmas cakes, puddings, etc.,
came into vogue.

By the Episcopal and Roman Cath-
olic Church, and by the Lutheran
Church, Christmas is celebrated by
special services, and gradually the
Protestant Churches are beginning
to look upon it as a church day, and
not altogether as a social holiday as
they once did.

At one time the celebration lasted
until Candlemas, but because of the
increasing realization that it is in
commemoration of the birth of the
Christ Child, it has become more and
more the children's day, one contin-
uous round of shrieking happiness
from first break of day until the tired
little heads snuggle down into the
pillows to dream of what Santa Claus
brought them.

Let's first gather at the church to
offer up the thanks that should so
gladly pour from full hearts, and then

the whole day will be so much more
satisfying.

Perhaps this brief sketch may not
add to your pleasure in keeping
Christmas, but it has been a satis-
faction to tell it. And now to din-
ner, for after all that's what we look
forward to, next to the tree.

THE CHRISTMAS DINNER.

That the Christmas dinner should
be a "feast of good things" goes With-
out saying, but where circumstances
and environment differ so widely
among housewives, it is difficult to
give a menu which is practical for all
readers. In this article, therefore, I
shall simply give the outline of an
average bill-of-fare for the day, and
then devote the greater part of my
space to the novel features of decora-
tion, gift-making and games, which
accompany the dinner proper.

Raw Oysters with Sliced Lemon
Cream of Celery Soup
Olives.

Roast Turkey or Roast Goose
Mashed Potatoes Cranberry Sauce
Boiled Onions Baked Sweet Potatoes
Salad

Christmas Plum Pudding
Mince Pie Pumpkin Pie
Fruit, Nuts and Raisins
Coffee

There are many ways of making
the table look "Christmassy." One of
these is to select a tiny tree of good
proportions and place it in the centre
of the table, decorating it with bright-
ly-wrapped parcels of diminutive size.
There should be one package for each
guest at the table, and a holly-red
ribbon should lead from the parcel to
the plate of the one for whom it is
intended. The packages should be dis-
tributed when the dessert is served.
If there are many guests, it is a good
plan to have these gifts very inexpen-
sive, and more in the nature of a joke
which shall give piquancy to the des-
sert, than of a more pretentious na-
ture. Of course this is a matter of
individual choice.

Another novel feature is a Christ-
mas pie, which is brought in with the
dessert and placed in the centre of
the table, in lieu of the Christmas
tree. The pie is made by placing saw
dust in a large round dish or milk
pan and burying the required number
of small gifts in it. A ribbon should
be tied to each so that it cannot slip
off easily—in fact, so that the gift can
be pulled out by it. The cover of the
pie is made from manila paper, very
slightly oiled in spots here and there,
and with a bit of flour brushed over
these spots, to simulate a pie crust.
Openings should be made, as one
would make fancy openings in a crust,
and the number should correspond
with the number of gifts, so that a
ribbon may be pulled through each
before the edge of the crust is fasten-
ed to the dish. Pleat the edges a little
so that the pie may not be too flat
over the top. Of course each guest is
to draw out a parcel, and this may
be done lottery fashion, taking them
as they come, or a name may be at-
tached to each ribbon.

A rather noisy, but a jolly game to

follow the dinner, is called "Christ-
mas on the Farm." It is an adapta-
tion of the old game of Stage Coach,
but is much more fun to play, and the
oldest and well as the youngest will
enjoy it.

The guests are seated in a circle,
while the story-teller stands in the
centre. Each guest is named after
some animal on the farm, the horse,
dog, cow, sheep, pig, cat, ducks, geese,
hen, rooster, etc. After all are named
they all place their hands upon their
knees.

The story-teller begins a tale about
the farm at Christmas-time, and as
he mentions the different animals up-
on the farm, each one in turn, when
mentioned, must make a noise like
the animal he represents. No person
is to be named "ox," but when the ox
is mentioned in the story, all quickly
put their hands behind them, and
keep them there until another animal
is mentioned, when they must place
them upon their knees again. The
story-teller must try to catch the hand
of some one in the circle, and if he
succeeds, that one must take his
place. When "all the animals of the
farm" are mentioned, all must make
their respective noise at once. Of
course this game can be overdone, but
if nicely carried out, it will be found
a very acceptable diversion to follow
a hearty dinner.

If this game has raised the spirits
of the younger portion of the assembly
somewhat too high, a good "quietus"
may be found in another game, which
must be prepared beforehand. Pass
to each guest an envelope in which a
Christmas card has been cut up in
puzzle fashion, and let them re-ar-
range the card. The one who first
succeeds in putting his cards together
should receive an inexpensive gift.

TO COOK THE CHRISTMAS DIN- NER PROPERLY.

Of course we all have our own
ways of cooking, but there maybe
some suggestions in the following
recipes that you'll be glad to think
over.

Cream of Celery Soup. Cook two
stools of celery and one large onion
until tender, mash through strainer
and add to one quart of milk which
has been prepared as follows: Put
three rounded tablespoons full of
butter into a pan, as soon as melted
add one heaping tablespoon of flour,
and, when thoroughly mixed, add one
quart of milk, stirring until it boils.
Season with salt and pepper.

Roast Turkey. We know of no
better way to prepare a roast turkey
for a family dinner than given in our
November number.

Cranberry Sauce. To one quart of
cranberries add just enough water to
cover, and when the berries begin to
burst put in two cups of sugar, and
boil five minutes. This may be serv-
ed as it is or strained.

Salad. Use the salad given in our
November issue, or the following:
One pint of chopped celery, half cup
raisins chopped, and half cup walnut
meats. Mix and moisten with sour
cream, two tablespoonsful sugar and
one tablespoonful of sharp vinegar.
Serve in apple shells.

English Christmas Plum Pudding.
Two bowls bread crumbs, one bowl
stoned raisins, one bowl finely chop-
ped beef suet, one and one-half bowls

currants, one-quarter pound finely
sliced citron, three tablespoonsful
flour, six well-beaten eggs, one large
nutmeg, sugar to taste. Mix thor-
oughly at night by hand, and in the
morning, add half cup of sweet milk,
stir well, pack in a large bowl, wring
a strong cloth out of hot water, and
tie loosely over bowl, but in strainer
and steam for nine hours.

Another Pudding. When eggs are
scarce, you will find this a delicious
substitute for the richer and more
expensive pudding. One cup of chop-
ped suet, one cup molasses, one cup
milk, three cups of flour and one tea-
spoon soda dissolved in boiling water.
To this may be added or not as you
wish; spice, raisins, currants and cit-
ron peel to taste, for instance, one
pound raisins, three-fourths pound
currants, half pound peel, four figs
and one cup chopped apple. Nutmeg
improves the pudding.

Pudding Sauce. Cream together
one cup brown sugar, two large ta-
blespoons butter, one tablespoon flour,
dash of nutmeg, add two cups boiling
water and boil for ten minutes.

Mince Meat. Two pounds beef,
two pounds beef suet, two
pounds raisins, two pounds cur-
rants, one pound citron, one pound
candied lemon peel, two pounds sul-
tanna raisins, two grated nutmegs,
half ounce cloves, fourth ounce mace,
one saltspoon of pepper, juice and
rind of two oranges and two lemons,
four pounds apples, three pounds su-
gar, one ounce cinnamon, one tea-
spoon salt, one quart cider or grape
juice. Add or omit as you wish two
tablespoons powdered coffee. Sim-
mer meat until tender, cool and chop
fine; stone the raisins; shred the cit-
ron; pare, core and chop the apples;
chop suet fine. Mix the dry ingredi-
ents, add the orange and lemon, pour
over the cider or grape juice, and
heat. Pack in a stone crock, cover
closely and keep cool.

Pumpkin Pie. One pint pumpkin,
cooked and put through a strainer.
Four eggs, three pints new milk, a
little butter, four teaspoons cinnamon,
two cups sugar, one teaspoon ginger,
pinch of salt. Warm the pumpkin,
stir in the salt, spices and sugar and
eggs well beaten; add melted butter
and milk. This will make two large,
deep pies.

Roast Goose. Many people, espe-
cially those from Great Britain, prefer
goose for Christmas dinner. Select
a young one. You can pick it out
easily as a young goose has a brittle
wind-pipe, white skin, plump breast
and yellow feet; an old goose has
reddish feet. For stuffing, use mash-
ed potatoes well seasoned with sav-
ory, sage and onions, and be sure to
have a nice little lot left over as the
most delicious part of the stuffing is
that which oozes out and crisps in
the rich goose gravy. Serve with
apple sauce instead of cranberry.

HOW TO MAKE XMAS GIFTS.

There are few people who do not
want to make Christmas a day of
cheer and happiness, and some sort
of gift is generally used to embody the
spirit of the day. The gift need not
be expensive, and may often be fash-
ioned from material already at hand.
More than one family has secured an
extra amount of fun in planning gifts

for the immediate family, none of
which were to cost more than 10
cents. Of course they had to set their
wits to work, but the planning was a
part of the fun, and all were surprised
when they saw what really pretty and
useful things they could evolve and
still keep within the prescribed limit.
Here are a few items which will help
to show what may be done in this
line:

Hemstitched Handkerchiefs. A
third of a yard of fine handkerchief
linen may be purchased for 30 cents.
This will make three handkerchiefs,
which may be carefully hemstitched,
and perhaps an initial worked, mak-
ing an acceptable gift for any woman
or girl.

Tissue Paper Gifts. A sheet of
crinkled tissue paper may be made
up into quite a number of gifts, the
cost of each amounting to much less
than 10 cents. Candle shades may
be covered, pasteboard boxes made
ornamental, flower pots may be at-
tractively finished. Indeed, the uses
of the tissue paper are almost endless.
One use, which should not be over-
looked, is the making of a set of doll
clothes for some small girl who is
fond of paper dolls.

Collars, Ties, Bows, Etc. Now
that fancy stocks, ties, collars and
bows of all sorts for the neck are so
much worn, and are made in such an
endless variety of ways, one can make
the best of use of the odds and ends
of ribbon, lace and bits of embroidery,
which accumulate in every home.
Any fashion magazine or some of the
Sunday newspapers will give hints
as to how to make these up in differ-
ent ways. Study the fashion models
and you will soon have ideas for half
a dozen. Small bows, very small in
fact, are used with linen collars and
give a very natty finish to an after-
noon dress. A bit of silk, finished at
the ends with an edge of plaid silk or
a trimming of lace, gathered closely

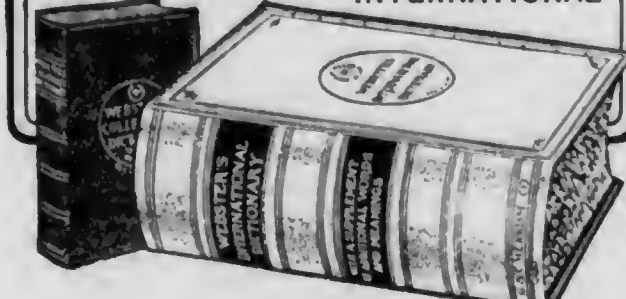
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through the middle and secured by a very small twist of the trimming material, makes a tie, such as is being shown in the best shops. Use ingenuity and originality, and follow the fashion plates for shapes, and you cannot go far amiss.

Sachet Bags are also in perpetual favor, and may be made from bits of silk, ribbon, fine white goods, or any pretty fancy goods which is light in texture. The sachet powder should be of good quality always, and the bags may be used to wear in the corsage, tucked into handkerchief or glove boxes, or among the contents of drawers where the personal wearing apparel is kept. The delicate, almost imperceptible perfume thus imparted is much to be preferred to the stronger perfumes which are often used.

Pretty Bags. Pretty little bags for buttons, hooks and eyes, or larger ones for carrying fancy work, or the handkerchief and purse, may be made from the never-failing "piece-bag," when the only expense will be for the ribbon used for draw-strings.

Raffia Presents. Many small and useful articles may be made with raffia, by one who has learned how to braid or weave it. A small tin or earthen jar suitable in size for holding matches, can have a cover woven of the raffia or of fine rattan, and the expense will be next to nothing, so small amount of material need be used. A bottle of pretty shape, such as some olive bottles with wide mouth may be covered with raffia and suspended against a wall or window casing for holding flowers.

Out of Turkish Toweling. A yard of Turkish toweling will make quite an array of the nicest sort of wash clothes, and these may be made more attractive in appearance by crocheting a border from knitting cotton around each one.

A SANTA CLAUS CHIMNEY.

A unique Christmas table decoration that anyone with a little ingenuity can easily make is a real brick chimney.

Make a board chimney about two feet high, or in proportion to your table, and carefully cover all exposed parts with red paper. Then with a ruler and white chalk mark it off into bricks, and spread cotton around the top to look like snow.

Its nice, of course, to hide in the chimney some little Christmas dinner favor for each guest at the table.

TO BE A GOOD CARVER.

The good carver is born, not made. Skill, not muscle, nor scholarship or moral courage is the chief requirement in carving turkey or a chicken or a goose.

Before attempting to carve it is better to have had some experience, or the tableful of hungry, waiting youngsters and older folks will have some fun with you. But the only way to gain that experience is to go at it and acquire it. The first thing to be learned, however, is a knowledge of the joints of a fowl. Then the process of separating them easily will be learned by close observation and practice. It is an art in which the fork is one of the prime factors. The knife will

not cut through bones. It will only slip between the joints, and the fork must be very skillfully used in assisting this unjointing process.

The fowl should be placed conveniently in front of the carver. The fork is planted firmly in one pinion and drawn with the pinion toward the leg on the same side. The knife is then passed underneath, and the wing taken off at the point. The knife is then slipped between the leg and the body to cut through the larger joint there. When the leg is drawn backward with the fork the joint will easily give way before the blade of the knife. After the other wing and leg are off, the carver cuts into the top of the breast under the "wish-bone." Lifting this with the fork, he may loosen it entirely. Then slices are carved from both sides of the breast. The collar-bones are next taken off and the side-bones separated from the back. The toothsome dressing or "stuffing" must not be forgotten when serving.

Chickens, geese, grouse, ducks, partridge and pheasants are carved like the turkey. Smaller game, such as quail, pigeons, woodcock, etc., are not carved, but simply split down the back, a half being served to each person.

Anyone who has ever been called upon for the first time to carve a turkey, duck or other fowl, will thoroughly appreciate these instructions. Carving, like everything else, is an art in which some excel but in which any man may become fairly proficient. So proficient at least that his wife will not make fun of him.

Cleaning White Plumes.

To clean a white plume, make a paste of gasoline and flour. Dip the plume in several times, rubbing lightly through the fingers after each dipping, shake out of doors until the gasoline has evaporated. The flour will shake off and the plume will very often retain its curl and fluffiness. This must be done where there is no fire.

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FARM BEAUTIFUL

Is this a Feasible Department?

I am not fully convinced that I can keep this department going. It seems more restricted than I had at first thought, and it will be difficult to get enough matter until our readers get courage sufficient to write me freely. Few of you haven't something stowed away in your heads and hearts that would be interesting and helpful reading to the rest of us.

THE PRESIDENT'S LATEST TALK ON FARM LIFE.

President Roosevelt has always shown keen interest in matters concerning the farmer and country life, and everything he says and writes bears the stamp of thought and sincerity. In his last letter on the subject, Mr. Roosevelt says, "I am striving for the principle of combining self-help with mutual helpfulness."

We are yet a people with whom agriculture is the most important business.

"The farms of America are worth some thirty billions of dollars, with an annual produce of about eight billions. This means that the six millions of farm families are in a good position already, but I wish it to be surer and better."

"With wise care our forests will improve, our rivers become more navigable, and the soil grow better. While as a nation we are growing wealthier we should see that the schools, and the roads, and rural reality should be improved. Our prime object should be the development of the highest type of average citizen."

"The country school is therefore of even more importance than the higher college."

"Our system of public education should be so broadened in its scope as to include not merely the traditional cultural studies, excellent and indispensable in their way, but also instruction relative to the farm, the trades and the homes."

"Industrial training, training which will fit a girl to do work in the home, which will fit a boy to do work in the shop if in a city, to work on a farm if in the country, is the most important of all training aside from that which develops character; and it is a grave reproach to us as a nation that we have permitted our training to lead the children away from the farm and shop instead of toward them. In other words, the school system should be aimed primarily to fit the scholar for actual life rather than for a university. I thoroughly believe that our people approve of higher education; but I also believe that they are growing more and more to demand a reform in secondary schools which shall fit the ordinary scholar for the actual work of life. Therefore I believe that the National Government should take an active part in securing better educational methods, by making appropriations, put a premium on industrial, and especially agricultural training in the State schools; the States being

required to contribute what is necessary for the ordinary training, and the expenditures for the National Government to be under the supervision of the Department of Agriculture, the schools being left wholly and directly under the control of the people through their local authorities, but suggestion and general oversight as well as improvement, being supplied by the experts employed by the nation, so that the children and the young men and girls in the smaller towns and in the country may have the educational facilities now only to be obtained in wealthier communities, putting into effect that cardinal American doctrine of furnishing a reasonable equality of opportunity of education and chance of development to all our children, wherever they live and whatever may be their station in life."

THE ATTITUDE OF THE FARMERS TOWARDS THE "UP- LIFT" COMMISSION.

It is reported that the farmers in the sections of the country which have thus far been visited by the Commission are more or less indifferent to the work, and that while a good many letters have been received by the President, not only from farmers but from sociologists, publicists, settlement workers and city dwellers, representing many walks of life, all commending his efforts for the uplift, yet, there are signs that whole communities are either indifferent to the work which Mr. Roosevelt has cut out for the Country Life Commission or positively opposed to being uplifted at all.

The fact that crops have turned out even better than expected; that construction of trolley lines has gone steadily forward; rural mail routes been multiplied; automobile manufacturers report many sales of 1909 models in the rural communities, and that the banks are bulging with a comfortable surplus to the credit of the folks described by President Roosevelt as living in "the open country," are given as the reasons for the apparent lack of interest.

To set at rest any misunderstanding as to its duties, the president recently wrote to the chairman as follows:

"My Dear Prof. Bailey: I wish at the outset cordially to thank you for the way in which you have taken hold of the work you are doing. No more valuable work for the people of this country can be done, because no more valuable work for the farmers of this country can be done."

Now of course the whole success of the work depends upon the attitude of the people in the open country, of the farming people of the United States. If they feel an awakening interest in what you are doing they should manifest it. Moreover, it is essential that the farmers, the men who actually live on the soil, should feel a sense of ownership in this commission, should feel that you gentlemen in very truth represent them and are responsive to their desires and wishes no less than their needs. It seems to me, therefore, that it would be wise to try to get into the closest possible touch with the farmers of the country and find out from them, so far as you are able, just what they regard as being

the subjects with which it is most important that you should deal. This you are already doing by sending out a circular of questions and by holding meetings in different parts of the United States. But perhaps something more can be done.

I accordingly suggest that you ask the farmers to come together in the several school districts of the country so that they may meet and consider these matters. I suggest the school districts because the schoolhouse would be the natural and proper place for such a meeting, or they could meet at other customary or convenient places. It would be well if the meetings could be held within the next three or four weeks; that is, before Congress adjourns prior to the Christmas holidays, so that at the time of the reassembling of Congress early in January you will have the reports of the meetings and so will be in position to advise definitely what should be done. I suggest that you ask them to meet not later than Saturday, December 5, and you will, of course use your own judgment whether to summon the meeting by circular or otherwise.

Throughout this letter where I use the word "farmers" I mean also to include all those who live in the open country and are intimately connected with those who do the farm work—ministers, school teachers, physicians, editors of country papers, in short all men and women whose life work is done either on the farm or in connection with the life work of those who are on the farm.

You know better than I what topics you will suggest. How would it do to include such topics as:

The efficiency of the rural schools.
Farmers' organizations.
The question of farm labor.
The need of good roads.
Improved postal facilities.
Sanitary conditions on the farm.

Your purpose is neither to investigate the farmer no to inquire into technical methods of farming. You are simply trying to ascertain what are the general economic, social, educational and sanitary conditions of the open country and what if anything the farmers themselves can do to help themselves and how the Government can help them. To this end your especial desire is to get in touch with and represent the farmers themselves."

To which Professor Bailey replied in part, as follows:

"The Commission is much gratified that its efforts have met with your approval. The public interest in the subject seems to be widespread and to be constantly growing as the purpose of the work becomes known. Discussion of the inquiry that the commission is making among the people themselves is the best means of arriving at a clear understanding of what the country life problems really are. The commission gladly welcomes your suggestion that all country people come together to consider these great questions and hereby requests all persons who are specially interested in the welfare of the open country to meet in their usual gathering places on or before December 5 to discuss the subjects you suggest or any of the questions on which the commission is making inquiries."

It may be depended upon that the farmer is neither unmindful of, nor indifferent to, anything of real interest to him, but he must first know fully what the matter is before he will even consider it seriously.

There are matters that this commission can take up that are of the deepest interest to every farmer, and the real importance of which can be brought out only in full discussion with representative farmers. President Roosevelt has mentioned several of them, and in its rounds the commission will have some good sound arguments that will be a revelation to its members.

The President and Chairman Bailey are agreed that the heart to heart plan suggested in our last issue is the only one that will be productive of helpful information.

If the thing had to be done over again we believe the results would have been very much more exhaustive, and therefore of greater value, if the Commission had been empowered to buy and pay for sufficient space in enough agricultural papers to properly lay the whole matter before the farmer, where he could have had time to study over the proposition and formulate a very much more dependable reply than on the spur of the moment at a more or less public meeting.

These things are worth doing thoroughly if at all, and should not be crowded into a few weeks.

Why are Our Homes So Barren?

Did you ever think how needlessly barren the majority of farm homes look from the outside? Next time you take a drive of any considerable length, just keep this in mind, and you will be surprised to find how little thought, and time, and even less money it would take to work out simple changes that would make many of them cosy and even beautiful.

A home must be more than a mere dry place in which to eat and sleep if it is to be hallowed in our memories. There must be special features about it that remain fixed in our recollections; certain views, sunny spots, and shady nooks.

We are not urging reckless expenditure of hard earned money—not a bit of it, but so much can be done in a small and inexpensive way to make us really happier, and to attach the young people more firmly to the old farm.

Are we not right?

One Well Constructed and Cared for Building Worth a Dozen Poor Ones.

The value of a farm is affected to a greater degree by the kind of buildings upon it than it is by the number of buildings.

One good building, well constructed and kept up is worth a half dozen poor ones, and will increase the market value of every acre of the farm. While poor buildings, or buildings in bad repair will depreciate the value of the best farm in the country.

During a busy time or a bad spell of weather some things about the barn are neglected until the appearance is quite untidy. If one will only spend a half day putting things to rights about the barn it will be time well spent.

ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

MISREPRESENTATION OF FOODS AND DRUGS SOON TO BE IMPOSSIBLE.

At least Dr. Wiley, Chief of the Bureau of Chemistry of the Department of Agriculture, at Washington, says it will.

The Doctor addressed a meeting of advertising men in New York, a few nights ago, and what he said will certainly interest our readers:

"Let me tell you right now," said Dr. Wiley in the course of his speech, "that no advertising is honest which makes the least misstatement, or any misleading statement, about the quality or benefit of the goods advertised. Don't make the mistake of believing that you can violate the spirit of the food and drugs law by printing such stuff in newspapers and magazines and evade the consequences. I would not like to see any of you brought up before me in Washington for any such thing, but if you continue to do these things I will get you or rather the law will."

The director of poison squads emphasized his remarks most surprisingly by reading to his hosts a batch of what he termed dishonest advertisements which he had clipped at random from the day's newspapers. He went further and, holding up a bottle of ed the advertising men that what they were drinking as whiskey and what some of them advertised, perhaps, as whiskey, was not whiskey at all, but a "blend."

"I see that somebody has recommended that Governor Hughes cultivate a few human frailties to emphasize his virtues," said Dr. Wiley in opening. "Well, I have tried to cultivate a few dietetic frailties to act as a foil to my scintillating virtues. I sometimes taste liquors containing alcohol, although I know alcohol when taken into the system is a poison. I eat bread, yet I know that even wheat contains some compounds that are deleterious to health."

"There is now before Congress what is a duplicate of the English merchandise act, which when passed will amplify the present scope of the food and drugs law, and from the present trend of court decisions it will not be long, I have reason to believe, before people who misrepresent the quality or the benefits of their merchandise, even though it be labelled within the letter of the present law, by printing false advertisements or circulars, will be prosecuted under the provisions of the law."

Dr. Wiley then read from his sheaf of advertisements.

"Now, those are what I call tainted advertisements," commented the doctor. "Others have written advertisements of their manufactures in which they made me indorse things which I would rather die than indorse and in many instances of which I had never heard a word previously. There is no crime on earth quite so mean as that. I would rather a man would steal my pocketbook.

"Very recently the Court of Appeals for the District of Columbia decided that no trademark could demand protection if the owner of that trademark sent out false and misleading information concerning the nature of his product. This is a step in the right direction. The courts may not convict Standard Oil, or if they do the conviction may be set aside, but let me warn you that they will convict you if you violate the food and drugs law."

The pure food director said that since the new law went into effect everybody was sitting up and taking notice; nearly everybody was trying to comply with its provisions. One could not say "Java and Mocha" coffee in any store in Washington now, said he, because it was not there and never had been.

"How long do you suppose 'brain foods' will continue to be sold under that title?" he asked. "You can't get a brain food that nourishes the brain and more than it does the big toe and just at the same time that it nourishes the big toe. Those 'brain foods' are going, and there will soon be no more of them. How long do you think manufacturers of whiskey will put on the market as whiskey something the new law compels them to label a 'blend,' and which is no more a blend than a mixture of coffee and tea would be a blend of coffee. No honest man need lose a night's sleep over this new law, but dishonest men are losing several right along."

In many ways we differ from Dr. Wiley. In our humble opinion the best way to cure an ill is not to destroy the patient.

There is no occasion in our blessed country to feed ourselves on bogus foods. But what earthly harm can come of Mr. Post calling his Grape Nuts a brain food if he wishes to. Certainly if Prof. Wiley succeeds in forcing Mr. Post to name his nourishing and delicious breakfast food "A mixture of wheat and barley and sugar"—our appetite for it would be gone, all possibility of advertising it profitably would end, and Mr. Post of necessity would turn his ability, energy and capital to some less interfered with field.

Many of us have safely reached a quite robust and respectable old age on the horribly adulterated foods that Dr. Wiley and his associates are daily warning us will "kill on sight," and we are more or less sensitive, and some of us are even so ungrateful for his well intended interest that we resent being told we are not eating what we think we are.

As children mother pulled us through many a hard attack of croup on a bottle of Dr. Jayne's, or Dr. Bull's, or even old Dr. Ayer's Cherry Pectoral, and who hasn't taken Carter's Little Pills, Castoria and more of these old, household remedies!

And land's sakes we're alive! How dare we after being told so persistently we cannot continue in our evil way and live!

Doctor Wiley is throttling the patent medicine industry and killing off the druggist.

Of course it scares the patent medicine "fiend" from worrying himself really ill over imaginary ailments, but he is just the fellow who will take up some other fad equally bad, and frequently more vicious and expensive.

In destroying the patent medicine business and wiping out the druggist there is possibly no actual loss in the cities, inasmuch as the bread taken from their mouths goes into that of the physician, and of course the medical men are entitled to their innings when they can get it.

But what about the twenty-five millions or more of our people who live in the country? Are they to be left to die while the farmer hitches up and drives three to twenty miles and back with the best he can get in the doctor line?

And what pure food and drug law is t guarantee us against the fatalities of many a doctor's prescription?

We country people need patent medicines. We have no more desire to leave God's beautiful world before our time than our city brother, and need all the protection he receives against actual fraud and deception. But all patent medicine manufacturers are not crooks; all proprietary remedies are not dangerous. Honesty and commonsense would soon weed out the black sheep, and we would be left our patent medicines, the only resort millions of us really have or can have until the country is either so thickly populated (or adulteration becomes so common) that a good doctor will locate at every cross roads.

All honor to the country doctor! He has a hard life of it at best and is as skilled as his practice pays him to be. We admire the assurance and skill with which his profession is urging its side of the case, but, my friend, remember there is born within each one of us an unreasonable horror of having the doctor for ourselves, and even the complete destruction of patent medicines will not mean more frequent calls from us. We will either suffer at home or be forced back to the simples of our grandmothers.

But why waste time and energy on trifles when there are so many real evils and dangers to be dealt with?

Thousands are going about our great cities actually starving and hundreds of thousands exist in continuous disease breeding darkness and filth. Can nothing be done for these?

Every time the clock ticks a baby comes into the world whose parents are absolutely ignorant of all else except that its body must be fed and clothed. And with each backward swing of the pendulum some unfortunate is carried out, whose condition was even worse than that of his forefathers.

Who knows these truths better than the physician?

Does it mean nothing that every year thousands upon thousands of our young, and sweet, and pretty daughters and sisters go down to lives of shame? Could tyrants devise torture too excruciating for the loathsome, oily-tongued fiends who traffic in these "white slaves," caught by glitter, by empty promise of employment, and swept on by despair until ashamed to come home.

A united, determined, continued warning from the medical profession would do more to make a clean sweep of these awful conditions than all the haphazard, spasmodic efforts of centuries.

And yet these heart-rending cries are unanswered while time, and effort, and money are spent in fighting the

makers of patent medicines and harmless breakfast foods.

Thank God for the country; thank Him every time you breathe. There are evils in the country too, and sin, but no misery, no filth, no starvation, no poverty that compels ten human beings to coop into one dark room.

How can we live amid the green things of nature and in the pure, free air and glorious sunshine and forget we were made just a little lower than the angels?

But all these blessings fail if they do not remind us we have a heavier share in caring for those not so fortunate, not so blessed as we.

WHITE SLAVE CASE.

Indictments Likely to Grow Out of the Rescue of Frances Collins.

"The Grand Jury began yesterday an investigation into the case of Frances Collins, the fifteen-year-old girl who was rescued from an alleged disorderly house by agents of the Children's Society. In one of the houses raided at the time was found a book which was said to contain the names of 400 disorderly houses. This book was before the Grand Jury yesterday, as was also Frances Collins.

The four women arrested in the raids were Frances Taylor, Carrie Duncan, Julia Keenan and Margaret Sheppard. Detectives Pisarra and Butts were also before the Grand Jury, which is expected to report on the cases on Monday. It is said that several indictments will be filed."

This clipping from the New York Sun is a case in point. If it is true that this cursed business is so highly organized that a list of the prison houses is systematically kept, then the sooner the decent people of New York City rise in their anger and crush them out the better.

But what shall be done about the state of humanity that permits such conditions. Are we absolutely dead to shame; to even common decency? Did Christ die in vain?

Hearings at Washington on Tariff Revision Pretty Generally Favor Increases.

The information gained by the Ways and Means Committee, of Congress, is widely varied, and the summing up after the sittings are finished will undoubtedly give the committee a basis on which to work, without which it would have been a very serious blunder to undertake any legislation on the tariff question, provided the consumer, as well as the manufacturer and producer, is given an opportunity to state his views.

So far increases have been almost universally urged, but here and there a manufacturer advises lowering the tariff even on his own line. In the session on sugar some things were said that are worth repeating for the benefit of our readers. For instance, Mr. Claus A. Spreckels, president of the Federal Sugar Refining Co., came out emphatically in favor of taking the duty off sugar.

Mr. Spreckels said: "Beet sugar factories located in proper localities such as Colorado, Utah, Idaho and Oregon should, and I am informed can, produce granulated sugar at 2½ cents a pound. Of course if it be the purpose of this Government to im-

pose a tariff which will enable the production in unsuitable localities at the expense of the American public then an import duty is necessary and will always have to be maintained."

Mr. Spreckels agreed that free trade would drive the sugar factories out of Michigan and end sugar beet growing there. Michigan, he contended, was not the proper place to raise sugar beets or to turn them into sugar, and the protection of the industry there should not be continued.

He went on to say: "If the Government wants to develop unnatural conditions it might encourage the raising of beets in Florida or cane sugar in Michigan. To do that it might be necessary to have a duty of 5 cents a pound on sugar."

The beet sugar people can produce sugar and sell in their natural territory. The cane growers of Louisiana sold their product last year on a basis of 80 cents a hundred above the European sugars laid down in New York, though their product had a protection of 1.68½ a hundred. Possibly the Louisiana sugar grower could sell still lower; I do not know.

When asked if he thought American beet sugar factories could do business at a profit under free trade, he answered:

"I do, if they were properly located," but if you continue to maintain the tariff for the protection of interests regardless of conditions under which they are doing business you will have beet sugar factories in Alaska to protect before long."

"The present tariff on sugar should certainly be reduced and gradually wiped out, and the quicker it is wiped out the better."

Edward P. Atkins, of Boston, an importer and sugar planter in Cuba for 25 years, when he said the rate on sugar should be reduced half a cent a pound at the very most, was pounced upon by Mr. Fordney, of Michigan, who wanted to know if Mr. Atkins had not heard Mr. Smith, of Owosso, Mich., say the day before that his margin of profit in manufacturing beet sugar was down to 20 cents a hundred pounds now. Mr. Atkins replied that he had, but that his views were not shaken thereby. It is an erroneous idea of the principle of protection that it should extend to the maximum cost of manufacture. Neither lumber men quitting their business nor cotton men doing the same thing could be expected to develop a degree of efficiency in two or three years that would enable them to compete with Europe, where two and three generations of experience was the rule. It is a misapplication of protection, as I understand it, to tax all the people of the United States for the protection of manufacturers above the average cost."

Some of this sounds right to us. We are emphatically in favor of protection wherever it is fair and for the real benefit of our own country, but just as emphatically against it when it is to produce an unnatural condition and works hardship as a whole.

One thing we must bear in mind is that this is an enormous country and that the proper view point from which to judge the effect of any movement or act is one embracing the entire United States, and not simply our own little, individual self.

If those engaged in the production,

manufacturing and distribution of sugar are getting a fair share of the return, and if the industry would be crippled and wrecked without protection, then it would be short-sighted policy to cut off the protection.

But it should not be protected one fraction of a per cent. more than the most careful investigation shows to be necessary.

We are all entitled to a fair return on our capital, whether it be labor, cash, experience, an invention, or what not, but we have no right, in fighting for that return, to work an injury to anyone else, or to receive any more than our share.

A solution to many of the serious problems of capital and labor lies in the unselfish recognition of this principle.

Our fear is that the Ways and Means Committee may overlook the consumer, who is entitled to express his views equally with the manufacturer and producer. The trouble is the consumer cannot afford the time or money to trot down to Washington, in any considerable numbers, and yet the consumer is at the bottom of the whole thing, and without him the manufacturer would have a hard row to hoe.

It would be unjust to assume that the members of this Committee are not broad minded enough to hear the question from all sides, and to make a fair report to Congress, but we caution them again that no report will be satisfactory that does not include an accurate estimate of the consumers' opinion on Tariff Revision.

The American Sugar Refining Company has since filed a statement with the committee, part of which reads as follows:

"Your attention is respectfully called to the fact that the sugar refining business is one of severe and fierce competition, that large numbers of people are employed in the different departments and that in the case of the American Sugar Refining Company attention is also called to the fact that the average holding of its stock amounts to less than forty-eight (48) shares for each stockholder, of whom there are 18,852.

Any legislation hostile to the industry will be keenly felt by many. A careful consideration of the accompanying statements will, we believe, convince your committee that the protection at present afforded the industry is very small but indispensable. It is very small but indispensable."

The Sugar "Trust" owns about 30 per cent. of the beet sugar refineries.

Some Interesting Facts in Regard to Sugar.

The American people are now using about 3,000,000 tons of sugar a year, for which they pay not far from \$400,000,000.

A liberal valuation of the cost of production, plus freight charges from Cuba, Porto Rico, Hawaii, Java, and other points, and with a fair allowance for planters' profits, would be \$150,000,000. The remaining \$250,000,000 is accounted for in costs and profits of refining, duties, cost of hauling and



distribution, dealers' profits and financial benefits to American producers of cane and beet sugar.

Ten years ago the consumption was 2,000,000 tons, almost 75 per cent, of which was imported. The increase in Hawaiian sugar, the admission of sugar from Porto Rico, and increase in beet sugar in America in ten years has reduced the imported to 42 per cent.

The keenest contestants for high duties on imported sugar are the producers of beet sugar in this country, who for more than ten years have claimed that the American beet would almost immediately supply the entire American market, and soon make us exporters of sugar.

In 1898 we produced 40,000 tons of beet sugar, which today has increased to 450,000 tons. So that these prophecies are all knocked to pieces. The production of native beet sugar has not even kept up with the increased consumption to say nothing of supplying the entire demand and leaving us a balance for export.

From these facts it can be figured out that the beet industry is costing us about \$100,000,000 a year, half of it going to the U. S. Treasury as duties on imported sugar and half to the producers of beet sugar in the West, and to growers of cane in Louisiana, Hawaii and Porto Rico.

Our consumption in ten years has grown from 50 per cent, with a per capita increased consumption of 33 per cent, a pretty fair indication that any change in tariff should be downward to benefit the American people as a whole.

We don't mind paying a price for what we buy that leaves the manufacturer a profit, but we want to feel that no one is taking advantage of us. If lack of sufficient sugar is helping to keep prices abnormally high let the duty be decreased.

PROTECTION FOR THE AMERICAN FARMER.

There are always two sides to every question, and it's not always wise to be too positive about our position so long as we have looked at only one side of it. The man who is "cock sure" has generally to at least modify his opinion when he meets someone who knows how to insist on the other side.

The tariff revision business is of the most vital importance, and should not be undertaken at all unless done thoroughly. Nothing should be thought of until a year from now at least.

Thomas B. Reed said in commenting upon the agitation for reducing the tariff duties of the Dingley law:

If you are thinking of modifying, relaxing or altogether abolishing our system of Protection, you had best not begin with the American farmer.

Let every American farmer ask himself the following questions before casting his ballot to remove the existing duty on the products of the farm:

Are you in favor of the removal of the duty of from \$2 to \$14 per head on cattle imported from foreign countries?

Are you in favor of the removal of the duty of \$1.50 per head on swine?

Are you in favor of the removal of

the duty of \$30 per head and up on horses and mules?

Are you in favor of the removal of the duty of 75 cents to \$1.50 per head on sheep?

Are you in favor of the removal of the duty of 30 cents a bushel on barley?

Are you in favor of the removal of the duty of 45 cents a bushel on barley malt?

Are you in favor of the removal of the duty of 2 cents a pound on barley pearled, etc.

Are you in favor of the removal of the duty of 15 cents a bushel on buckwheat?

Are you in favor of the removal of the duty of 15 cents a bushel on corn?

Are you in favor of the removal of the duty of 20 cents a bushel on corn meal?

Are you in favor of the removal of the duty of 1½ cents a pound on macaroni, etc.?

Are you in favor of the removal of the duty of 15 cents a bushel on oats?

Are you in favor of the removal of the duty of 1 cent a pound on oatmeal?

Are you in favor of the removal of the duty of 2 cents a pound on rice?

Are you in favor of the removal of the duty of 10 cents a bushel on rye?

Are you in favor of the removal of the duty of 25 cents a bushel on wheat?

Are you in favor of the removal of the duty of 25 per cent. ad valorem on wheat flour?

Are you in favor of the removal of the duty of 6 cents a pound on butter and substitutes therefor?

Are you in favor of the removal of the duty of 6 cents a pound on cheese or substitutes therefor?

Are you in favor of the removal of the duty of 2 cents a gallon on milk?

Are you in favor of the removal of the duty of 2 cents a pound on milk preserved or condensed?

Are you in favor of the removal of the duty of 45 cents a bushel on beans?

Are you in favor of the removal of the duty of 2½ cents a pound and up on beans, peas and mushrooms preserved?

Are you in favor of the removal of the duty of 3 cents each on cabbage?

Are you in favor of the removal of the duty of 5 cents a gallon on cider?

Are you in favor of the removal of the duty of 5 cents a dozen on eggs?

Are you in favor of the removal of the duty of \$4 a ton on hay?

Are you in favor of the removal of the duty of 20 cents a gallon on honey?

Are you in favor of the removal of the duty of 12 cents a pound on hops?

Are you in favor of the removal of the duty of 40 cents a bushel on onions?

Are you in favor of the removal of the duty of 40 cents a bushel and up on peas?

Are you in favor of the removal of the duty of 25 cents a bushel on potatoes?

Are you in favor of the removal of the duty of 25 cents a bushel on commercial seeds?

Are you in favor of the removal of the duty of \$1.50 a ton on straw?

Are you in favor of the removal of the duty of 25 per cent. ad valorem on vegetables?

BLOODED STOCK for December—1908.

Are you in favor of the removal of the duty of \$1.40 to \$1.80 per hundred pounds of sugar?

Are you in favor of the removal of the duty of 4 cents to 11 cents a pound on wool?

Are you in favor of the removal of the duty of 15 per cent. ad valorem on hides?

Are you in favor of the removal of the duty of 35 cents to \$1.85 a pound on leaf tobacco?

Are you in favor of the removal of the various protective duties on fruits and nuts?

Are you in favor of the removal of the duty of 5 cents a pound on bacon and hams?

Are you in favor of the removal of the duty of 2 cents a pound on fresh beef, veal, mutton and pork?

Are you in favor of the removal of the duty of 5 cents a pound and up on the extracts of meat?

Are you in favor of the removal of the duty of 2 cents a pound on lard?

Are you in favor of the removal of the duty of 3 cents a pound and up on poultry?

Are you in favor of the removal of the duty of ¾ cent a pound on tallow?

Imports of the fiscal year 1908 of agricultural products were as follows: Foodstuffs in crude condition and food animals...\$145,433,483 Foodstuffs partly or wholly manufactured..... 146,823,521

Total.....\$292,257,004 To these should be added certain raw materials and other agricultural products, such as:

Fruits and nuts.....	\$37,300,000
Hides and skins.....	30,000,000
Wool.....	23,600,000
Tobacco.....	23,000,000
Seeds.....	6,300,000
Hops.....	2,000,000

Here we have a total of over \$122,000,000 not included above, which brings the total imports of agricultural products to over \$414,000,000 for the fiscal year 1908.

I am glad to think I am not bound to make the world go right; But only to discover, and to do, With cheerful heart, the work that God appoints.

—Jean Ingelow.

THE PRESIDENT GREETED THE GRANGERS.

President Roosevelt received at the White House about five hundred farmers and their wives who attended the convention of the National Grange, at Washington. The President refrained from making a speech, but, as the sturdy tillers of the soil were introduced, he gave each his heartiest handclasp and a cheery greeting. After the reception the President remarked that seldom has he seen such prosperous looking farmers.

Chief Forester Gifford Pinchot's address was the feature of the proceeding of the Convention, and the keynote of the speech was the farmer's duty in co-operating with the Government in furthering the objects of the National Conservation Commission, which seeks to aid the individual citizens of the country in controlling water power, rather than permit that power to be monopolized by a few.

BLOODED STOCK for December—1908.

BEAVERS BECOMING PLENTIFUL AGAIN IN THE ADIRONDACKS.

The beaver is coming into his own again in the Adirondacks. His prospects are presented by Mr. Radford in the last report of the New York State Forest, Fish and Game Commission. Perhaps he may never again number 1,000,000, which is supposed to have been the beaver population of the Adirondacks when the white man came to the scene in 1609, but the policy of restoration begun by New York State and fully supported by public sentiment seems likely to make him abundant again in the haunts of his fathers.

The days of wicked wastefulness in the hunting of fur animals are about over, and it is time. The murderous warfare upon beavers was always excessive as long as the animals were in large supply. In the year 1700 the collection of skins at Montreal was so enormous that the foreign market was glutted, and three-fourths of the skins were burned to make it profitable to export the remainder.

For many years the Adirondack forests were alive with white and Indian trappers, and there is nothing easier to trap than a beaver. The result was that in 1800 there were only about 5,000 of the animals left in the whole Adirondack region, according to the best estimates, and for the last fifty years many writers have asserted that the beaver was extinct in this State.

This was not quite true, however, for one or two families survived in Township Twenty of Franklin county, one of the least visited areas of the Adirondack region, and even they were in process of extermination, for now and then a white man came their way, and it was estimated that in 1895 only one or two beaver houses were inhabited, with a total population of five or ten individuals.

Several years ago an effort was begun by New York State to repopulate its northern forests with these valuable fur bearers. The law of 1904 prohibited, under severe penalties, the taking of beaver. Thus far the Legislature has appropriated \$1,500 for the purchase of beavers and their liberation in the Adirondacks. Some of the animals have been brought from the Yellowstone National Park. Several large landowners have also purchased a few beaver and turned them over to the State. Thirty-four beavers have been released in different parts of the forests, and it has been made a part of the duty of the Guides Association to attend to their liberation and to report now and then on their prosperity.

The best news is coming from these colonies. They are doing well, are very busily engaged in the constructive arts of their kind, are multiplying rapidly, and it is estimated that they now number 150.

The Adirondack people are heartily welcoming the return of the beaver, and if this industrious little animal continues to enjoy public favor and support there will be little danger in future that the commerce in his fur will involve his extermination.

The value of a farm is affected to a greater degree by the kind of buildings upon it than it is by the number of buildings.

It's Inconvenient and Too Bad, But It's Right.

Frequently farmers have objected against the tuberculin test, saying they cannot afford to have their herds depleted. But the very fact that they fear the test is evidence that they feel confident of the presence of the disease in their herd.

Aside from the danger to humanity at large, it seems strange that any man should be so short-sighted as to wish to keep sick cows, for the animal that would re-act is certainly a sick cow. One can not hope to build up a strong and healthy herd from a weak, diseased foundation. It is indeed a short-sighted policy that will permit of lavishing feed, care and work upon unhealthy animals. The fact that it is often impossible to detect tuberculous cows is another reason in favor of using the test. It seems that one ought to realize before the winter season begins with its extra care and the unusually high price of feed, that it is of importance to devote the attention to nothing but strictly healthy stock.

The Bang system of controlling the disease has proven itself thoroughly reliable, but it is often inconvenient to make use of it upon the average farm where but a small herd is kept. Get rid of the sick cow if you would carry on your dairying most profitably. It may take some courage to do it, but look at the matter in the right, sensible, unselfish light and I am sure that you will realize that it is folly to harbor a lot of animals that can at best yield a slight profit aside from endangering the healthy individuals in the herd, and possibly passing the dread disease on to human beings.

Is anything of more value than human life? The surest way to know how these things seem to others is to think how you would feel toward the man who was doing something that might prove fatal to one of your little ones. That's what drives it home to us.

LITTLE ONES ARE LENT TO US AS IT WERE.

Many mothers expect that the devotion and care they lavish upon their children when they are young will be paid back with interest when these children grow older, and are distressed and disappointed when they go their own way and seem careless of maternal advice. How often they speak of this as a fault, either in the children or in themselves.

What a great amount of trouble and worry would be saved if we could just realize there wasn't any fault at all, but the inevitable working out of the law of life.

The little boy who needs so much care during infancy and the days when our arms can shield, is the man of tomorrow, and long before mother deems him able to be independent of her care the life forces within him are preparing him for life destiny.

The destiny of the boy and girl we may hold in our arms is not the destiny of our own life, and we cannot compass it from him. What useless atoms upon the earth they would be if we could do their life work for them—not worth possession of a soul. Not by your standard or mine, must

they win or fail, but by their own.

The years that belong to the mother, the happy years, are those full and running over with great responsibilities as little feet are taught to walk firm and straight, and little minds are grounded in ways of truth and honesty. The first few milestones on the path of life when lessons are taught of self-control, of simple honor, of high thinking and of right living are yours to guide and train.

When the time comes that these principles must be put into practice and be tried by the fire of the world's criticism, the boy and girl must meet it alone. Then their inner lives will show forth, and their individual selves grow.

The price you pay—must pay for motherhood—is to bid them "God-speed" though your throat aches and eyes are dimmed. For only by going, and living, and doing, can they live their life.

Remember, the Master Himself forgot His parents' anxiety at twelve years of age.

Farm Help Procured by the State.

The State Board of Agriculture of New Jersey is making arrangements to act as a sort of clearing house for procuring farm laborers. The farmer writes to the Secretary of the Board, at Trenton, stating just what he wants, the kind of work, wages to be paid, and length of time needed, and, with the co-operation of the Department of Commerce and Labor, at Washington, the help is looked up and furnished.

A good idea for other States of the Union.

Another Way to Get Rid of Rats and Keep Them Away.

Sprinkle sulphur on the barn floor and through the corn as you draw it in and never a rat or mouse will bother you.

As you stack oats, or hay, or wheat, or rye, sprinkle sulphur on the ground and a little through each load and it will keep the "varmints" away.

A pound of powdered sulphur will do a whole corn crop and it will never do you or the cattle any harm either.

TREMENDOUS DEMAND FOR CORN. ITS USE SPREADING IN EUROPE.

Organized and well directed effort will accomplish almost anything nowadays. A well trained force of over four hundred men and women are demonstrating the use of American corn at home and throughout Europe. G. W. Wattles, president of the National Corn Exposition, reports that he found these demonstrators at work in France, Italy, Germany and Holland, at the fairs, etc., talking the native languages fluently, and making thousands of new customers for the farmers of the American Corn Belt. At nearly all the hotels Mr. Wattles says he found on every bill of fare new dishes made of corn.

In London, at a commercial exhibition, one hundred and twenty-eight corn products were shown.

Is it any wonder prices are good?

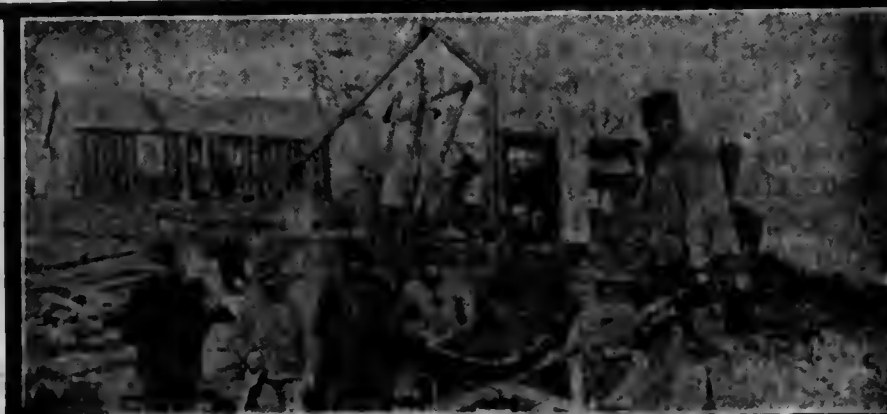
The Georgia peach crop for 1908 was 7,000 cars, or 21,000,000 baskets, each containing twenty-six peaches.

Minnesota Iron Mines Are Paying Big Profits

100% INVESTORS ARE GETTING MORE
THAN 100 PER CENT DIVIDENDS
ON EVERY DOLLAR THEY PUT IN **100%**



\$
\$
\$
\$
\$



**DO YOU WANT TO BUY STOCK NOW AT
ONE DOLLAR THAT MAY JUMP TO \$140**

The Iron Producing Lands Co., is a strong organization of business and professional men, farmers, clerks and office people who seeing the vast fortunes being dug out of Minnesota Iron Lands determined to win some of the wealth Nature has so lavishly bestowed, by banding together to develop such ore lands as they might acquire.

The purpose of the company is first to acquire lands in the ore belt, then to develop such lands for all that is in them. To raise a fund for this purpose a limited number of shares of stock in the company are offered for sale. The price of these shares are \$10 each and promise in a very short time to be worth several times that amount. If we strike as rich a vein of ore as has been found on all sides of us our stockholders will realize big dividends on their investments.

This company has already acquired lands in the very heart of the ore belt. On all sides of our holdings rich strikes have been made and millions of tons of ore is the reward the stockholders will have as a result of their investment.

On all sides of this company's property are drillings showing vast deposits of iron ore, and within 80 rods **forty million tons of ore have been blocked out.** The accompanying illustrations show examples of the active mining operations now going on near our lands.

Now is the time for you to invest in a company owning ore lands ready for development. Don't hesitate and when the big stake is struck regret that you couldn't see ahead far enough to get in on the ground

floor. The ore belt is limited and the opportunity to increase your fortune in this way will soon be gone forever.

The increasing demand for iron makes the development of new iron producing fields a profitable enterprise and one which offers attractive inducements to investors, being a much different proposition than ordinary mining schemes.

Millions of tons of ore underlie the lands in the Cuyuna District of Minnesota. Heavy options for leases have been paid since the discovery of iron ore in this locality. In one instance \$10,000.00 cash was paid for the privilege of exploring fifteen 40-acre tracts. The Northwestern Improvement Company, organized by the Northern Pacific Railway interests to develop iron deposits along their railroad paid a \$40,000.00 fee on a tract of land which only a few years previous was sold by their agent for \$200.00.

The lands owned by this company have every indication of being as valuable when they are developed as any in this rich district. Won't you join with us in this work?

Every dollar invested in shares in this company participates directly in all operations carried on by the company and in all dividends declared.

Don't hesitate to send any amount you care to invest. But if you prefer more information write for free prospectus full of facts and figures that explain conditions as they actually exist. Remember only a limited amount of this stock is available, so write today.

IRON PRODUCING LANDS CO.,

846 Bank of Commerce Bldg.,

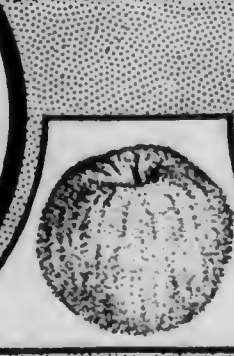
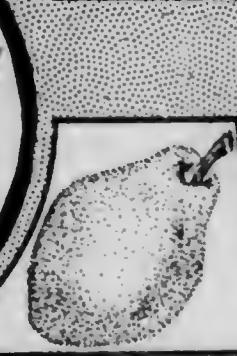
Minneapolis, Minn.

LITERARY

THE BLOODED DAIRYMAN AND POULTRY RAISER



JANUARY.
Janus am I; oldest of potentates!
Forward I look and backward, and below.
I count—as god of avenues and gates—
The years that through my portals come and go.
I block the roads and drift the fields with snow,
I chase the wild-fowl from the frozen fen;
My frosts congeal the rivers in their flow,
My fires light up the hearths and hearts of men.
—Longfellow.



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One Dollar for Five Years

January

1909

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser January, 1909

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SUBSCRIPTIONS—Can be sent at any time and will begin with the current issue unless otherwise specified.

HOW TO REMIT—Send money by Postal Money Order, Express Order, Bank Draft, or Registered Letter. One and two cent postage stamps in good condition accepted for small amounts.

CHANGE IN ADDRESS—When ordering a change in address be sure to give former as well as present address.

ADVERTISING RATES—15 cents for each agate line, each month. 5 per cent. discount for cash with order. Average seven words to a line. Fourteen agate lines to an inch measure.

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Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

WHAT OUR PAPER STANDS FOR

For the Farmer, First, Last and All The Time.

But unselfishly and with malice toward none.

It is exclusively for the East, and by the East we mean the states of Ohio, Pennsylvania, West Virginia, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Vermont, New Hampshire, Massachusetts and Maine, States where farming conditions are more nearly uniform.

A territory within reach of the advertiser whose market is the thrifty country people of the East, and who want to cover it without getting western circulation that is of little benefit to them.

ARTICLES AND EXPERIENCES WANTED.

Write to us. There are in the lives of every farmer, of every wife of a farmer, and of every hired man, and hired girl on a farm, of every one who lives in the country, whether old or young, incidents, experiences, trials, perplexities and pleasures that would be of interest and instruction and amusement to the rest of us. Let us know about them. Sign your name or not, as you see fit, but let's unite to make this the best farm, home paper ever turned out.

When you can, without inconvenience, ask a friend or neighbor to subscribe. For sending us a club of three subscribers at 25 cents each, or one at one dollar for five years, we will renew your subscription a year for your courtesy and trouble.

FARM BRIDES AND GROOMS GET A YEAR'S SUBSCRIPTION FREE.

We have a friend who was born on a farm and lived and worked there until almost twenty, but whose business has kept him in the city for the last twenty-five years, who has asked us to say to you he believes so firmly that the future of every young farmer and his bride will be so much brighter and happier if they start out with a good farm paper to grow up with, that if they will allow him to do so

he would consider it a privilege and favor to pay for a year's subscription to Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser.

All you need do is to send us within two or three weeks of the wedding your name and address, and the date of your marriage, and the paper will be mailed to you for twelve months without any expense to you. Remember, the paper will not be sent to you beyond the time for which the subscription is paid. Of course you will be notified of expiration and we will be glad of renewal.

COMMISSION ON COUNTRY LIFE

Receiving Helpful Answers and Suggestions From Farmers Everywhere.

We have been curious to get a line on the sort of replies farmers have been making to the Commission on Country Life, but of course only the Commission itself will have an opportunity to look over enough of them to get a fair average.

One of our good New Jersey friends has sent us a copy of his answers, which we think of enough general interest to warrant our publishing them in full, with editorial comments on a few of the propositions presented.

The Commission desires to secure the opinions and observations of farmers, teachers, ministers, business men, and others on the condition of country life, and their suggestions as to what needs to be done. Some of the subjects into which the Commission wishes to inquire are stated in the twelve questions on this sheet, and under each head two questions are asked. The Commission desires your reply to the questions under any one or more of the heads. Please reply at once, using the inclosed envelope (no postage required). The names of correspondents will not be made public.

The Commission will be glad of any fuller discussion of the above subjects that you may desire to make, or of any other subject pertaining to the general economic, social, or sanitary conditions of country life. Such supplementary information may be written on a separate sheet.

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned **Blooded Stock** when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

The general purpose of the Commission's work is to arrive at an understanding of conditions and of public opinion with regard to American country life, as a basis for a report and recommendation to the President; and to this end the Commission invites the co-operation of every citizen. Other subjects are to be taken up

otherwise. If you receive more than one copy of this circular letter, it will be explained by your name occurring on more than one of the address lists used. Please hand the duplicate to a neighbor.—Commission on Country Life.

I. Are the farm homes in your neighborhood as good as they should be under existing conditions?

Yes. Need a little paint here and there, but that's about all.

II. Are the schools of your neighborhood training boys and girls satisfactorily for life on the farm?

Fairly. They might be taught more about plants and plant life, and about soils.

III. Do the farmers in your neighborhood get the returns they reasonably should from the sale of their products?

No. They are not posted on selling prices of their products.

What suggestions have you to make?

That the Government should arrange for the furnishing of daily market reports, and literature on the business of selling farm produce.

IV. Do the farmers in your neighborhood receive from the railroads, highroads, trolley lines, etc., the service they reasonably should have?

Service by the railroads is entirely satisfactory. The roads are fair, but too many of them impassable in spring.

I suggest that trolley lines should be authorized, and directed to carry freight and express. This would be a tremendous advantage, especially in handling of milk.

V. Do the farmers in your neighborhood receive from the United States postal service, rural telephone, etc., the service they rea-

BLOODED STOCK for January—1909.

sonably should expect?

Satisfactory from all excepting telephones. Telephone company fixed a monthly rental, which is satisfactory, but in addition insist that I must pay for the installation of the service to my residence. I suggest more thorough state or Federal control of telephone and trolley lines. I hardly think I am in favor of state ownership, yet, at any rate.

VI. Are the farmers and their wives in your neighborhood satisfactorily organized to promote their mutual buying and selling interests? No. Because co-operation in trading is not understood in this country. I suggest a campaign of education in the methods and benefits of co-operation.

VII. Are the renters of farms in your neighborhood making a satisfactory living? I am not competent to advise on this question as I live among farm owners.

VIII. Is the supply of farm labor in your neighborhood satisfactory? No, it is not sufficient, nor competent, nor dependable, because farmers have not realized that the time of daylight to dark, seven days a week, at \$12.00 a month, with board, and unheated room, and the kitchen to sit in, are passed forever. I suggest shorter hours, better payment, and comfortable quarters. A cheerful acknowledgment that the hired help are human beings and not always simply slaves.

IX. Are the conditions surrounding hired labor on the farms in your neighborhood satisfactory to the hired men? Yes, better than usual, and much better than formerly. Scarcity of labor has forced better conditions. I suggest appreciation of a fair employer and more loyal, intelligent and interested service on the part of employees.

X. Have the farmers in your neighborhood satisfactory facilities for doing their business in banking, credit, insurance, etc.? Yes.

XI. Are the sanitary conditions of the farms in your neighborhood satisfactory? Yes.

XII. Do the farmers and their wives and families in your neighborhood get together for mutual improvement, entertainment, and social intercourse as much as they should? No. The Church and Grange are about the only means for the meeting of any considerable numbers, but the Church is for worship and too much time is taken up at Grange meetings with red tape and unimportant matters. What suggestions have you to make? That farmers really get down to doing something along this line. The winter evenings are long; meet around at neighboring houses and give an hour and a half to the threshing out of something selected for the evening. Not necessarily on farming; take history, some movement of interest, literature, etc. Give the rest of the evening to having a good time, "getting acquainted."

Let us realize there is more to life than we, as a rule, are getting out of it. What, in your judgment, is the most important single thing to

be done for the general betterment of country life? To teach us farmers how to sell our produce advantageously. The Agricultural Department at Washington, and of each state, the experimental stations, and agricultural colleges and schools are doing a grand work instructing us how to make two blades of grass grow where only one grew before, but only one farm paper is teaching us, or making any effort to teach us how to sell what we grow.

A Government expert ought to take hold of this branch exclusively; get up a campaign of printed matter that should be published in farm papers, and inaugurate a system of notifying every postmaster in rural sections, daily, by telegraph or telephone, as is done for the weather reports, the nearest market quotations. By paying actual cost a farmer who wished it should be served daily with this report over the rural mail delivery route.

EDITORIAL COMMENT.

We will not repeat the questions but simply refer to them by number in order to save space.

Number One. Our brother is right. While farmers are less afraid of a little paint than they used to be, there are still too many eye-sores throughout the country. We are not unmindful of the fact that paint costs money, and that there are a good many places for every penny, but we cannot forget, either, that if the binder had been put under cover in the fall, or the cultivator not left where you last used it, there would have been money for paint. Take care of the chickens as carefully as you do your team and you'll be able to paint every couple of years. Paint not only adds to the appearance and life of the buildings but increases the value of your entire farm.

III. There is not much doubt on this score. The farmer draws in a load of corn and is told the price is so much. He has no means of getting as late quotations as the dealer, and the only alternative is to take what he's offered or draw the load back home. If the government would arrange to furnish daily market reports by telegraph or telephone or some such plan as the weather reports are handled, all would be posted alike. Each week there might be mailed to each rural post-office a brief resume of the week's transactions in farm produce. Necessarily this work would have to be under the direction of a man of ability and experience, because unless well done it would be worse than useless.

The improvement in production has been tremendous during the last few years, but the selling end has remained about stationary. What has been done with one can more quickly be accomplished with the other.

IV. Of course this same answer cannot be applied generally, but wherever there are trolleys they should be available for transportation of freight. Think of the convenience and saving of time for the dairyman alone. Much is being done for the improvement of roads, and much remains to be done, but in time we can reasonably hope to have roads as good as Europe has enjoyed so many centu-

ries.

V. I'll frankly admit I am not clear yet whether Government ownership of telephone and telegraph lines, would be a good thing or not. There is much to be said on both sides. But of one thing I am positive and that is that every public service corporation should be subject to government supervision, wisely carried on.

VI. There is enough to be said under this head to fill this entire number of our paper. As our country grows and competition increases the difficulty of making what we have grown to consider a comfortable living becomes greater, and gradually but surely we are forced to adopt methods and means that have been tested out in Europe; and one of these is co-operation in buying and selling. Here is a splendid subject for some of our younger men to discuss and write about. Let us have two or three papers for next number of Blooded Stock. Study the enormous business done by the "stores" in England.

VIII. The keynote of the shortage of farm labor has been struck, and until our friend's suggestions are followed there will be a shortage. Nowadays a man works on a farm when he can't get employment elsewhere. Write us what answer you made to this question and to number nine.

IX. We cannot expect loyalty to the farm and to our interests unless there is proper compensation, not only in money but in treatment. "Any old place" will not do for the farm help of today. We are all of the same flesh and blood and are equally interested in advancement and improvement. The laborer of today may frequently be the farm renter tomorrow, and before very long, the owner.

X. There is rarely any considerable difficulty as far as credit with merchants and insurance are concerned, but there is plenty of room for improvement in banking accommodations for farmers. It is unreasonable to expect farmers to be familiar with methods of banking, and this leads many to hesitate about going to the bank for short loans when it would mean a great deal to them to have the ready money. The banks exist for the purpose of buying and selling money, and if no one borrowed money from them they could not exist. This is a point to remember, and another is that when you go to the bank for a loan you are not asking a favor of them and have no need to apologize and hem and haw. If your security is satisfactory your application is entitled to the same consideration as that of any other client of the bank, and will generally receive it.

XI. Our lives are too selfish. We have too many chips on our shoulders, are too thin skinned, and too much afraid everyone is trying to take advantage of us. Our own interests do not require all our time; there is plenty left for social improvement and enjoyment. Be democratic, be congenial and unaffected. Remember God created all men equal and that material prosperity, though creditable, does not entitle us to assume superiority. Those of us who are blessed with unusual gifts in any particular line can be of so much benefit to the less fortunate, and to the community as a whole, and it's our duty to use those gifts properly; they were not

(Concluded on Page 15)

THE COW AND THE DAIRY

WHAT IT COSTS TO RAISE A COW.

A great deal of profit is lost on account of failure to figure the cost of handling live stock, or rather, we should say, if we stopped to figure what it costs to feed a cow or raise a calf we would be awakened to the value of raising a better class of stock which would in turn mean increased profits. Any farmer will agree that the keeping of live stock on our farms is necessary for the maintenance of fertility. This is one step in the right direction. However, after once determining on a system of diversified farming and the keeping of live stock, the farmer should endeavor to grade up his herd by the use of pure-bred sires until his cattle attain a quality which will give him dollar for dollar for feed consumed. There is more money in selling grain than feeding to some classes of stock.

The Michigan Experiment Station kept an accurate account of the expense of feeding a dairy calf for one year from the date of its birth. The amount of feeds used in that time was 381 pounds of whole milk, 2,568 pounds of skim milk, 1,262 pounds of silage, 219 pounds of beet pulp, 1,254 pounds of hay, 1,227 pounds of grain, 147 pounds of roots, 14 pounds of alfalfa meal and 50 pounds of green corn. The grain ration was composed of three parts each of corn and oats, and one part of bran and oil meal. The calf weighed 800 pounds as a yearling, and the cost of the feed was just \$28.55.

This calf was, of course, well raised, which is the only kind of raising that pays.

Ex-Gov. Hoard, of Wisconsin, who has had years of experience in handling dairy stock, estimates that it costs about \$50.00 to raise a two-year-old heifer under average farm conditions, and that it costs \$40.00 a year to keep a cow when she is in milk.

Here are two views on the cost of raising calves and an estimate of the cost of keeping a cow. From our own experience we believe the figures to be approximately correct although some of our readers may have a different view of the question. Apply these figures, or your own figures in case of a difference of opinion, to your herd and see if your cattle are paying market prices for the feed consumed. It is the best illustration we know of for urging the interest of good blood and good care, the two great essentials in the profitable handling of live stock.

Employ a first-class sire, breed up your cows, raise alfalfa, test your cows and watch the effects of the feed to get best results.

FOOD COST OF PRODUCING MILK.

After a year's observation with the herd at Cornell University experiment station, H. H. Wing, professor of dairy husbandry, reaches the following conclusions:

"1st. With a fairly good herd, carefully fed and kept, milk can be pro-

duced for sixty-five cents per cwt., and fat for sixteen cents per pound for the cost of food consumed.

2d. That individuals of the same breed vary more widely in milk and butter production than do the breeds themselves.

3. The large animals consumed less pounds of dry material per 1,000 pounds live weight per day than did the smaller animals.

4th. That in general the best yields of fat were obtained from cows that gave at least a fairly large flow of milk.

5th. In general, the cows consuming the most food produced both milk and fat at the lowest rate.

6th. For the production of milk and fat there is no food so cheap as good pasture grass."

Note particularly "6th." This being the case does it not stand to reason that the best results in winter months must come from feeding the nearest approach to green pasture grass? And is that not silage and properly cured alfalfa? Two years ago there were in Blackhawk county, Iowa, two silos, while today there are seventy-five.

Why Do Our Cows Not Produce Like Those of Europe?

The average annual butter production per head for the 1,500,000 dairy cows of Iowa is 140 pounds. In neighboring states it runs up to 160 or 170 pounds, while here and there is a herd with an average of 250 or even 300. But in Europe the actual average butter fat is 300 pounds per cow. And the tremendous difference is largely the result of poor methods and poor cows.

The climate that produces such splendid pasturage helps Europe, and so does the cheap labor for the growing of roots, but then there are disadvantages to contend with that offset these or lessen them.

In England, for instance, there are families who for generations have bred and developed one particular strain of cattle. The men of to-day have had tips and pointers from their grandfathers and even great-grandfathers on the peculiarities of this animal and that animal and on its progenitors for generations. Consequently the development has been systematic, gradual and thorough. Strong tendencies have been strengthened and bad or weak ones bred out. They have not attempted to do in a generation what must take, we might say, centuries to accomplish, and have not become discouraged because success did not reward their efforts in a few years.

We have some great breeders in America today, but will their sons step into their shoes and go on from where their fathers left off? Or will the attraction of the cities prove too great? This is what we need so greatly, men who know their animals as they know their children. Of course grand animals are produced spasmodically, but the great, constant and settled uplifting of the average will come when we have first

developed the breeders themselves.

Then again we have had so much "waste" land that we are only now getting down to an understanding of what careful, economical feeding means. By economical we mean the feed that would produce the maximum results at the minimum cost. Tremendous strides in this direction have been made in the last few years, forced by the high prices of bran, etc., but much remains to be done. For the roots of Europe we must substitute silage, and for the pasture, green oats and peas, alfalfa, etc.

A few decidedly poor cows pull the average of your herd down tremendously, and so it is with the average of the state. The farmers who know a bull as a bull no matter what its breeding, and who can see nothing in testing cows but a "new fangled" waste of time are doing their community and their state, and the entire country, a great injustice.

Those who can see into the future where merit must count even more vitally than it does today, and who can see that competition will be as keen in virgin America as it is in the old world, must keep on fighting for the improvement of our herds, our methods, and our men.

To refer once more to Iowa. It is said that the state is losing now between twenty and thirty millions of dollars each year on account of poor cows and poor dairying methods. Do you grasp the force of that?

TAKE CARE OF YOUR MILK PROPERLY.

Farmers and dairymen who sell their milk to cheese factories often do not get as good returns from the factory as they would if their milk was free from certain faults. Most of these faults show up in hot weather. One that is very common, and that affects more particularly production, is floating cream. This detriment is brought about by the milk not having been sufficiently cooled. The floating cream is, of course, weighed in with the milk, but it is impossible to embody it in the curd; it goes off in the whey, and as far as the production of cheese is concerned is a distinct loss.

Over ripe or old milk, a trouble that could easily be avoided, produces what is called white whey, which is really butter fat in a peculiar state. It is brought about by the lactic acid developing too soon to enable the curd being properly cooked, and, consequently, the curd is left too soft, and fat goes off with the whey in the form

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Box 38 H Frederick, Md.

mentioned. Tainted milk, the worst of the faulty kind, affects the yield in that the maker, to get rid of the gas it generates, allows an excess of acid which, as in the case of over ripe milk, cuts the fat in such a way that it is not all embodied in the curd. Extra working of the curd made from this kind of milk also results in loss in production.

All impure milk used in the manufacture of cheese affects the product adversely to the yield. Therefore, the producer of the milk does not on this account get the result he would otherwise obtain. Of course, the other parties interested in the industry are losers in like manner. If the milk was sent to the factory in a proper condition, the gain would be considerable.

These are little points, but neglect of any one of them makes quite a difference in the month's returns.

GENTLENESS AND KINDNESS WITH COWS.

Cows are naturally of the mildest disposition of any four-legged animal on the farm, and they should be treated kindly and not abused by the milkers and drivers. The practice of sending boys and a dog after cows and allowing them to rush them from the pasture into the milk yard exhausted and excited will cost each year from ten to twenty-five pounds of butter or cheese from every cow milked. It is best at all times to drive cows leisurely to and from the pasture. If you are in a hurry let the driver make double quick time when he is going to and from the field and not accompanied by the cows.

Throwing stones, sticks and other missiles should be forbidden, and the operation of milking should be done rapidly and with but little or no talking and laughing to excite the cow. Should a cow make a misstep or switch you unpleasantly in the face during milking, please don't kick or speak so sharply as to startle her. In many herds there are often one or more cows which only a certain member of the family can milk. This indicates very plainly that someone is mild-tempered and understands a cow's disposition.

Milk With Dry Hands.

Milk should not be applied to the teats to reduce the power required in milking, because it is no help in the long run and adds filth to the milk obtained, and in cold weather the wet teat will become cracked and sore.

A box located at some convenient point should contain at all times a supply of salt. If salt is fed in large doses once or twice a month the cows

will then eat too much, causing derangement of the digestive organs.

All cows with a domineering nature and sharp horns should have the tips of the horns taken off. Brass ends lessen the danger, but do not prevent the pushing and bruising of other cows. We again say, treat the cows kindly and they will help you keep a well-filled pocketbook.

If you are not kind and gentle by nature treat the cows well because it pays to do so.

CERTIFIED MILK.

An Additional New York City Regulation.

An ordinance was introduced recently at a meeting of the Board of Aldermen providing for the better regulation of the milk traffic. If adopted it will prevent the sale in that city of milk and cream not pasteurized that comes from the dairies where the herds are not certified by the Board of Health to be free from tubercular diseases. One clause in the proposed ordinance reads:

"When the herd of any particular dairy has been certified as free from tuberculosis, and when the milk and cream of said herd, as offered for sale in this city, has been found to contain less than 500,000 bacteria to the cubic centimetre, on examination of at least three samples taken from three different cans or bottles, the Department of Health may certify said milk and cream and allow it to be sold raw for the space of one month under a label showing the certification of the Department.

This certification it is provided shall be renewed from month to month. No milk or cream shall be received in this city except when shipped in sealed bottles or cans which shall have distinctly marked on them the dairy from which they come."

Bloody Milk. I have a cow that gives bloody milk out of one teat. She is in fairly good shape but has been this way a week. What is the trouble and is the milk fit to use?

Keep the cow up and feed her lightly on grain as well as hay and fodder. Night and morning give her two drams of dilute sulphuric acid in drinking water and three times daily bathe the udder thoroughly with cold water and then foment with a lotion composed of a dram of dilute sulphuric acid and two drams of powdered alum in a pint of cold water. The milk will not be fit for use while containing blood. The bleeding is doubtless due to rupture of a small blood vessel or to general congestion of the quarter from a bruise or garget.

Cowpox. My cows have a fester sore on teats and scabs forming over it, very tender and hot. It looks as if the whole herd would have it; the sixth one had signs of it this morning. Will it have to run its course, or is there a cure?

You have made out a good case of "cowpox" and the affected animals should at once be isolated and milked last or by a different milker. Wash the udder with a mixture of one ounce of hyposulphite of soda in a quart of clean water; then twice daily paint the sores with glycerite of tannin. If some sores are obstinate in healing remove the scabs and paint once with tincture of iodine and then use the

other medicines. Give each affected cow half an ounce of hyposulphite of soda in feed night and morning. Keep cows up until they are well.

To farm successfully three conditions are necessary—the right man, a good cow and the proper feed. If anyone is off quality the results are bound to be discouraging and then we will hear "farming doesn't pay."

In cleaning the separator be sure and see that the parts are dried rapidly so as to prevent their rusting. Still the dring is better not done with a cloth, as this will leave many bacteria to work upon the next lot of cream. The best way is to wash the parts in luke-warm water, then scald and heat by immersing for a few minutes in boiling water, then put in the sun to dry. The heated metal will very soon dry off.

There are some things that cannot be repeated too frequently, and this is one of them. The effects of a dirty separator are not always immediate, but your cream or butter consumer eventually learns where not to buy. Little things are sometimes very far reaching in their consequences.

Excessive feeding is not only a waste of feed, but a positive injury to the present and future usefulness of the cow as a milk producer.

Do you really know how many pounds of milk a day your cows are giving? Do you know how much a good cow should give?



1909

Tubular "A"

The latest model of the greatest cream separator ever built. The Tubular "A" represents everything good and desirable in cream separator construction. An advanced type of the best known separator in the world.

The celebrated Tubulars are used by the best dairymen in every section of the earth where cows are milked.

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Write for them. A few bushels of corn at present prices buys it and it's good for many years' work. It saves a fifth to a third of the feed.

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HOGS

SELECTING BREEDING HOGS—POINTS TO KEEP IN MIND.

Taken as a whole, there is no decidedly marked difference between the early maturing qualities of the Poland China, Duroc Jersey, Chester White, Jersey Red and Berkshires. Neither has it been proven that one has any very marked superiority over the other as to the rate at which flesh may be laid on or the cheapness of gains. The characteristics of these breeds are well marked, and there are special points of excellence that one breed may possess to a greater degree than the other; still, considering the factors which determine almost entirely the profit or loss in hog raising, namely, fecundity, rate and cheapness of gains, a more marked difference will be found between individuals of the same breed than between any of the above breeds taken collectively. It is therefore necessary whether breeding pure bred hogs or grades to consider the individual carefully when selecting breeding animals.

Fecundity. The fecundity of sows always appeals to hog raisers. The size of litters varies with breeds to some extent, but still more with individuals. Statistics compiled by the Indiana Experiment Station show that the average size of several hundred Poland China, Berkshire and Chester White litters were, Poland China 6.5 pigs to the litter, Berkshire 7 pigs to the litter and Chester White 7.5 pigs to the litter. However, litters of these breeds will vary from 3 or 4 to 10 or more pigs to the litter. Confinement and over-fattening tend to reduce fecundity. Again, sows that are sluggish or overrefined in type are usually indifferent breeders. So far as known the sow controls the size of litters, and since fecundity is largely an individual or family characteristic it is good policy to select brood sows only from litters of which at least seven pigs have been successfully raised.

Type. In selecting breeding hogs, either male or female, the following points should receive consideration: form, size for age, quality, and feet and legs.

To thoroughly inspect a hog, it is necessary to view it from the side, front and rear, both standing and in motion. From the side the hog should show a rather arched back without any depression back of the shoulders or at the loin, a deep body of good length and a deep, well rounded ham. From front and rear the side lines of the body should be straight and parallel, and this will be true if the development of shoulder, spring of rib and ham are uniform.

Good quality is indicated by fine hair, medium bone, absence of wrinkles and general coarseness. Hogs coarse in type mature slowly and fatten indifferently. Those possessing harsh hair and skin and showing wrinkles will produce inferior pork.

Breeding hogs should have short, strong legs and strong, upright pasterns.

Common Defects. Lack of sufficient bone, as shown by weak, broken

down pasterns, is a common defect noticeable in brood sows, especially those that have been fed largely on corn. In fact, feed has much to do with development and strength of bone. A low, weak back indicates weakness, and no young sow showing such a defect should be saved for breeding. These two defects—weak pasterns and backs—may be readily noticed when the pig is moved and often when standing. Other common faults are coarse shoulders open on top, poorly sprung, short ribs and narrow loins.

Selection of Boar. None but pure bred boars of good form should be used, and only those possessing early maturing qualities. By selecting vigorous, well formed sows of prolific families and pure bred, early maturing boars of good quality, the best combination is secured. This combination of good qualities may be secured in one breed, but more often hog raisers attempt to secure them by selecting sows of one breed and boars of another. There is nothing radically wrong with this plan if market stock is the object, still equally good or better results can be obtained by sticking to one breed and making a careful selection of all breeding stock. We, ourselves, believe in selecting the particular breed that appeals to us and in sticking to it through thick and thin, breeding a strain with pronounced good qualities.

IT PAYS TO FEED THE SOW AND GIVE THE LITTLE ONES A START.

Profit in hog raising consists of making the largest weight in a given length of time most economically, and one of the important points is to keep the animal growing from the minute of its birth, and to see that the sow is in condition to produce thrifty pigs.

A reader gives his views as follows: "I certainly think that there is good money in feeding the sow heavily while she is suckling her litter, because the first three months of the pig's life is the time when the foundation for pork is laid. I have found that a large sow with nine or ten pigs tagging after her will eat about as much grain in a day as a cow and there is good money in feeding her all she will eat. Of course, corn alone is not enough, and unless it can be done otherwise, I would advocate selling corn and buying shorts and possibly a little oil meal or tankage. I mix up a slop composed of about five parts shorts, five parts corn meal and one part tankage or oil meal, and allow this to soak twelve hours. You will find that if plenty of it is fed, your young pigs will hustle from the start. No hard and fast rules need be laid down as to what kind of grain or meal shall compose the ration. When one has on hand a supply of oats or barley these grains may be used to excellent advantage. The ration given above is simply one of many that might be compounded by any feeder. The main thing is to have something to supply flesh-making material to the growing pigs.

As to feeding the young pigs grain I believe in making for them a slop and accustoming them to eat by the time they are three or four weeks old. They will soon acquire the habit, and the food consumed will be made use of. The slop mentioned above will answer their purpose quite well, though the supply of tankage, oil meal and shorts may be slightly increased. It is possible to make the little pigs too fat, so that they make slower growth a little later on. This must be watched, and they should be fed so as to keep them healthy and strong and in straight condition. They will weigh from 175 to 200 pounds at six months, and if they do, there need be no difficulty in bringing them to 275 or 300 pounds by the time they are nine, or at the latest, ten months old."

Another reader has just finished killing his hogs and tells us that his late May pigs averaged one hundred and thirty pounds dressed. They ran in a rape patch until the middle of October without a pound of grain or meal. In October green corn was fed sparingly and after the corn was husked they were put in the pen and pushed.

We have asked the subscriber to let us know the exact cost of each of these hogs, and trust he will, as it looks to us like turning out meat at an exceedingly low price. He sold for eight cents per pound.

DON'T FEED THE SAME THING ALL THE TIME.

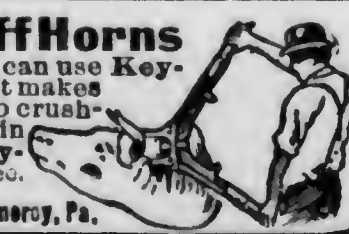
A well known Wisconsin breeder gives the following excellent advice in regard to feeding breeding stock:

"Give them, always, fresh air, dry beds, plenty of range on good pasture; don't stuff them with corn. Corn is the most valuable food we have, but its use in excess is pernicious with breeding stock of all kinds. The hog thrives best when he can get to the ground and has a variety of food. A hog lot without plenty of good forage is no place for breeding stock. When breeders thoroughly appreciate that pork making and breeding are two distinct propositions, there will be a much to be desired advance in the health and vigor of our favorite breed.

We feed our Berkshires to make them normal, 2,500 pounds separated milk, 1,500 pounds wheat middlings, oats, barley and corn, clover and alfalfa, fresh air and exercise, as one day's ration.

What happens when we overfeed a plant? Its root system, its leaf system, its trunk, its whole body is impaired. Following this comes devitalization. It is open to attacks of disease. It will easily be assailed by fungous diseases and insect pests. It rapidly and abnormally grows onward to its death.

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It's true. Any man can use Key-stone II shorn. It makes clean, smooth cut. No crushing or tearing. Done in a minute. Seldom money-back guarantee. Book free.
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HOG CHOLERA

The Hog Worm is the Most Dangerous Foe of the Hog

In almost every outbreak of cholera you will find hogs very wormy. They get a hog out of condition and unthrifty. Then it is an easy prey to disease. The Snoddy Remedy will destroy every character of a hog worm. Even the liver and lung worms, which are the most dangerous, are easily destroyed with the Snoddy Remedy. Ten cents worth of the Snoddy Remedy will clear out the worms and purify the blood of a hundred pound shoat, so that he will be worth one dollar or more in a few weeks than he would have gained without this remedy. Can't you afford to invest ten cents per head to make your shoats worth a dollar per head more than they will without this little investment. Then why waste time and feed on wormy, runty hogs when it is easy to have them thrifty.

It also prevents and cures Hog Cholera. Any practical farmer can stop the worst outbreak of cholera that ever came with it and restore his herd to thrift in a few days' time. It is used and endorsed by the leading hog raisers of the country. Snoddy's free book on the care and management of hogs, so as to keep them thrifty and clear of cholera or worms, will be sent to you free, by return mail, if you send your name and address to

THE SNODDY REMEDY CO., Box 290, ALTON, ILL.

The hog is quite sensitive to change of climate, feed and care, and it pays well to feed and care for pigs, when taken to new surroundings, until they come to breeding age.

For some time now we have abandoned the doctoring habit. A hog that needs doctoring is not fit to reproduce itself."

There is nothing new in this, of course, but it's good and cannot be pounded home too often.

Control of Litter.

Mel Maart, a resident of the suburbs of Chicago, carries a good-sized herd of 100 hogs or more which are fed on offal from the packing-house, being contents of stomachs of slaughtered animals, much of it whole corn. It is free to him for hauling it off, and is a great fattening food, both for hogs and chickens.

His hogs have been somewhat of a mixture of Poland-China strains in which he practiced selecting his best sows for breeders, and then purchased a pedigreed Poland-China boar. During the last three years his sows' litters dwindled down to two to four pigs to a litter. Hoping to remedy this, he bought, one year ago, a Duroc-Jersey boar and bred him to the same sows and they had large litters in each case; two of them had thirteen pigs each, and raised them.

These facts are given to show that in this case it would seem that the boar had something to do with the number in the litter."

This report is re-printed from the American Swineherd. May the trouble not have been that the Poland-China boar was worked too hard?

DON'T OVERFEED THE SOW.

Many breeders, especially with a favorite sow, are too good to them and feed them, or rather overfeed, until they get them out of condition. The pigs will get out of condition at the same time and lots of trouble will ensue. A breeder who will look after his sows and their pigs closely, feed them regularly, moderately and intelligently, will get them started in good shape and keep them growing continually, and will be able to show something to his neighbors that he will be proud of later on.

Be Fair About It.

If there is any case of swine trou-

ble in your neighborhood it is a good plan to report the matter to the Live Stock Sanitary Board of the state. This board is supposed to establish a quarantine and prevent the spread of the disease. Some farmers hesitate to report such cases but the good of all demands a rigid quarantine and the good results accomplished in such cases recommend such a procedure.

Treating Paralysis in Pigs.

Partial paralysis in pigs may be treated successfully in some cases by dosing with epsom salts, allowing one ounce to each animal, following with a dessertspoonful of cod liver oil, ten grams of phosphate of lime and two drops of nux vomica as a physic, given twice a day for several weeks.

For best service of the boar, he should be kept in good, strong flesh the year around. Don't let him become a skeleton and then try and build him up hurriedly with soft flesh. You will have unsatisfactory results in your breeding if you do. The boar needs plenty of exercise to keep him hardened. He is one-half your herd, and is entitled to extra care. It is profitable to do so.

Late statistics issued by the U. S. Department of Agriculture, show that the number of hogs in the country on September first was 49,728,000, which was about 5,000,000 less than reported the same time a year ago. This means a decrease of 9 per cent in the available hog supply, although there has apparently been no notable decrease in the consumption of pork products. This fact together with the very moderate prices prevailing for breeding stock should certainly seem an inducement for young breeders to embark in the business.

With hogs to reach the results attained by the best feeders there must be a strong constitution, or else the animal could not assimilate the great amount of food required to secure such rapid growth.

My hogs have a skin disease. Their skin is very rough, especially so where it is soft, as under their body and throat, and around their legs, where the skin is full of small sores. Their

hair looks dead, and they are in a general run-down condition, with very poor appetites.

Your hogs are probably infected with worms, and with lice on their bodies. The worms are the cause of the run-down condition, and hogs in this condition are almost certain to have lice on them. Give them some turpentine in their feed. A tablespoonful for each hog once or twice a week for a week or two. Pour a little kerosene on their backs the whole length of the hogs. This will spread over their whole bodies and will kill the lice. Clean out their sleeping quarters and burn up the bedding, and disinfect the places with limewash with kerosene mixed in it. After the hogs have got over the effects of the turpentine mix the following ingredients for a tonic and give it to them as directed: Wood charcoal, 1 pound; sulphur, 1 pound; sodium chloride, 2 pounds; sodium bicarbonate, two pounds; sodium hyposulphite, two pounds; sodium sulphate, 1 pound; anitmony sulphide, 1 pound. Pulverize and mix thoroughly. Dose, a large tablespoonful once a day for each 200 pounds of live weight. Patent food tonics are used by many hog raisers.

GREENWOOD STOCK FARMS

Farmers and breeders I now have a large stock, probably the best I ever owned, thoroughbred Poland-China and Chester White Pigs, 2 to 6 mos. old, sows bred and boars ready for service, all from prize winning stock. Guernsey and Jersey Cattle, Buff and Barred Plymouth R. Chickens. Farms and Residence, Greenwood, Pa. Address C. H. DILDINE, Route No. 1, Rohrsburg, Pa.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES

I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 2 to 6 months old mated not akin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochranville, Pa.



BLOODED LIVE STOCK

FARMERS WARNED.

Sharpeners Posing as Cattle Inspectors.

The Pennsylvania State Live Stock Sanitary Board has issued a warning to the farmers of this state to beware of a new class of sharpeners who have taken advantage of the recent epidemic of foot and mouth disease to pose as cattle inspectors and charge for making examinations of farmers' live stock. Others have imposed on the farmers by stating that an official recommendation had been issued that \$1 be deducted from the price of calves because of the presence of the disease. The Board denies any such recommendation.

If men's wits were only as quick in legitimate directions as in thinking up ways to cheat the people how much better off they would really be, and how much more comfortable we would also be.

DOES IT PAY TO KEEP REGISTERED JERSEYS?

If you like good stock, it certainly does; for then you will take a pride and interest in them which will naturally cause you to take better care of them. You will want to see them fat, clean, and in good stables whenever it is stormy. It means a little more work to keep a herd during rainy days or nights. You will have to provide a little straw for the gutter, so that the tails will not get wet and dirty and be switched into the milker's face, which generally causes a little quick temper with words from most milkers not pleasant to hear.

A good, registered herd on the average is worth above common stock: \$30 for butter-fat; a calf at one year old, \$50; the cow left, from \$100 to \$200; with the common cow at \$40, and her calf not worth raising except you should by chance get a heifer calf that develops into a good milker, and then you must have a good, registered sire.

Some contend that the registered stock business will soon be overdone. It will not be with a butter breed, for the more good cows there are the more are wanted, and the increase in butter production is not keeping pace with the demand. It takes the pure-bred animal to produce a better animal.

If you are good and kind to your stock, get some pure-breds; if not, do not keep any stock around you, for stock is not profitable when abused.

FEEDING BEEF CATTLE PROFITABLY.

Many men who would make a profit by feeding out one carload of beef cattle make a failure when they plunge into the business too heavily.

We must have good blood, but it avails little unless supported by a liberal system of feeding and rational care.

The future of a steer is made during the first year of his life. Once growthy and thrifty, it takes food to maintain that condition.

The well-finished steer at two years

of age will bring more than the same animal would at four years of age in the same condition.

It is a great mistake to send unripe beef cattle to market. They will not ripen on the road like California fruit.

One of the chief advantages of feeding a small number of animals is that of getting a better class of feeders.

The farmer who makes beef from his own corn, which he grows on his own land, and under ordinarily favorable conditions, can fatten beef cattle cheaper than any professional feeder in the business. We often wonder why so few small feeders make a success of the business.

There are thousands of acres of land in New Hampshire available for pasture, and we believe a very large increase in beef cattle could be profitably made in the East. There was a time, and not so very long ago either, when thousands of beef cattle were raised and fattened in New Jersey.

Prices of beef are high, the Western competition is no longer so keen because free range is a thing of the past, the market is more extensive and steady, and we believe the time has come when beef raising will once more prove profitable, particularly when conditions are not favorable to dairying.

DEHORNING LESS PAINFUL WHEN CALVES.

To dehorn calves by the use of caustic potash when the horns are just starting is more humane than to use the saw on the horns after they have developed. The task is easier too at the earlier period. The operation with caustic potash should be made before the calf is nine days old. The better time is when the calf is from two to five days old. The hair should be clipped away from around the horns. A stick of caustic potash should be rolled in paper, with one end of the caustic bare. This should be slightly moistened and the tips of the horns rubbed for about fifteen seconds, or until the potash has made a slight impression on the tip of the horn. The treatment should be given two, three or four times, according to the age of the animal and the size of the horns, about five minutes being allowed to elapse between the applications. If a little blood appears in the centre of the horn it will then be necessary only to give a slight rubbing with the potash. Adopt this method, rather than wait until the animals grow, and you have to use the more painful method.

Ring the Bull When a Yearling.

Ring a bull when he is a yearling, as it is easy to hold him at this time with a common halter. Do not cut a round piece out of the nasal septum or burn a hole through it, as that would probably injure the sense of feeling besides being very cruel. Use a common trocar and canula for punching the hole and holding it in shape for the ring. It is difficult to insert the ring after

punching the hole without the use of the canula, as the holes through the cartilage and skin in the nose are not in opposition. A copper ring, hinged in the center, with a screw to hold it together after insertion, is commonly used.

Nose ringing a bull has no effect whatever upon his disposition, its sole purpose being to furnish a means for handling him with ease and safety.

Unknown Trouble—Time to Breed Heifers.

A calf when it was 10 days old died, and upon examination I found the milk curdled in its stomach.

We were feeding it 4 lbs. three times a day, its mother's milk at noon, and milk from another cow at morning and evening as we thought its mother's milk too rich for it.

We have some heifers that will be a year old in April; would you advise us to breed them so as to fresh-

FOR SALE OR EXCHANGE.

Only Two Cents a Word.

All classified. Each initial or number counted as one word. No advertisement taken for less than 25 cents each issue. All replies must be sent direct to advertisers. Cash covering the exact number of words at 2 cents each must be sent with every order. This Department for Live Stock Only.

POULTRY.

Barred Plymouth Rocks, America's finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

FOR SALE—Very handsome trotting mare, in foal to Perry K. 213, \$100. P. J. WYAND, Cumberland, Md.

CATTLE.

PURE-BRED Registered Holstein bull calf. Dam's record 15.34 lbs. MADISON COOPER, 101 Court, Watertown, N. Y.

PURE-BRED Holstein Bull Calf. Eligible for registration. Also high-grade bull calf. MADISON COOPER, 101 Court, Watertown, N. Y.

HOGS.

FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$13 to \$20. 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. WM. HARSHMAN, Thurmont, Md.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsburg, N. Y.

FARMERS

Send 50c in stamps for 6 months' subscription for the Horse News and Speed Bulletin. Finely illustrated paper. And receive three valuable formulas free—Bone Spavin Cure, Heave Cure and a Good Hair Grower—all genuine. Address P. J. WYAND, Cumberland, Md.

en when they are two years old and then have them freshen again when they are 3½ years old. Or would you advise us to hold them so as to freshen for the first time when they are 2½ years old.

This description is insufficient to make a diagnosis of the case.

If your heifers are good, strong, thrifty ones, breed them so as to have them freshen at about 2 to 2½ years. We prefer the two- and a half.

Grinding Corn.

The number of feeders who believe they cannot feed profitably without first grinding every bushel of grain used is growing every year. The day of dumping ear corn into feed bunks is about over. Grinding makes it look like a wasteful way, and it is a wasteful way. Most feeders are grinding ear corn, feeding cob and all. Of course this cannot be done when corn is still soft, but as soon as it has matured enough to shell it is safe to grind a week's feeding ahead. Just how much value there is in ground corn cobs, if any, no one seems to know, but grinding saves the shelling and then the grinding, which must be done when feeding pure corn meal, and the cob meal adds bulk to the crushed corn, which is a help even if there is no feeding value in the roughage.

Cows That Pay.

Professor Spillman, of the Washington experiment station, writes: "In the first place, the paying dairy consists of cows that eat heartily and do not make meat, but do make milk of their food. This means that they must be dairy and not beef cows. A good dairy cow, though she be killed and buried when she gets too old to give milk, will give a profit that will buy three good beef cows."

The man who has no desire to improve his stock but to breed on with the same old kind year after year must necessarily lead a sort of humdrum existence. The ambition to bring about improvement in live stock will not only result in greater profit, but it will vitalize one's interest in his work.

Should the calf not seem to thrive, give it a half pint of wheat bran, with a pinch of salt, scalded with a teacup of hot water. Give this with the usual amount of milk, and always keep some corn, oats and hay, with pure water handy.

It's Worth While.

Ratekin's Seed House is offering to send their 1909 seed catalogue, and a sample of "Diamond Joe's Big White" seed corn free to every reader of our paper who writes for it. Write for it and try that sample of corn in some good fair place in your garden. Give it fair treatment, and then plant some of the corn it produces, the following year, so as to see what there is in it. You may find it better for your locality than what you're using.

The catalogue is over ninety pages and filled with good things. Everything is called by its own name. There is an air of sincerity about the reading matter that is foreign to many seed catalogues.

Sheep Becoming More Popular.

It wasn't very long ago that sheep

Great Fences

AMERICAN FENCE

Made of wire that is all life and strength—wire that stretches true and tight and yields just enough under impact to give back every jolt and jam it receives.

Made of materials selected and tested in all the stages from our own mines, through our own blast furnaces and rolling and wire mills, to the finished product. Our employment of specially adapted metals is of great importance in fence wire; a wire that must be hard yet not brittle; stiff and springy yet flexible enough for splicing—best and most durable fence material on earth.

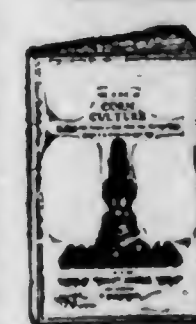
To obtain these and in addition apply a quality of galvanizing that will effectually protect against weather conditions, is a triumph of the wiremaker's art.

These are combined in the American and Ellwood fences—the product of the greatest mines, steel producing plants and wire mills in the world. And with these good facilities and the old and skilled employes back of them, we maintain the highest standard of excellence possible for human skill and ingenuity to produce.

Dealers everywhere, carrying styles adapted to every purpose. See them.

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San Francisco

ELLWOOD FENCE



PROF. HOLDEN'S BIG CORN BOOK FREE

A B C of Corn Culture, 100 pages, fully illustrated, original, authorized, copyrighted edition, finely printed and bound, worth dollars to every man raising corn. A. I. Root, the Bee Man, says: "This book is as large as some of the 50 cent books. If every corn grower would get a copy and read it, it would put hundreds of dollars of profit in the pockets of thousands of people." The most valuable work published this century, for the farmer. All about corn breeding, corn selection, planting, cultivating, insects and remedies. The greatest authority on the greatest crop. More corn and more profit from the same acreage and the same labor. The new corn doctrine in a nutshell. To introduce we will send Farm News, the biggest little paper in the world for the farm home, on trial 3 months for 6 cents. Send 6 cents to prepay postage, royalty and expense on the Corn Book, and 6 cents for a trial subscription to Farm News (2 cents in all). Either offer separately if desired. Address FARM NEWS, 411 Washington St., Springfield, Ohio.

were the least appreciated of farm animals. No one wanted sheep; they were considered risky investments; but today farmers are buying up all they can get and appropriating good land for their use. There has been a growing demand for lamb ever since the packing-house put it on the market. The so-called "woolly taste" in poorly dressed animals disgusted peo-

ple, but this has been overcome largely by the packers.

There isn't anything very much more delicious than good freshly killed, home grown yearling lamb, without a flavor of the butcher's ice box or refrigerator car. Anyone who has eaten Canadian lamb and mutton will know what we mean.

OUR FEATHERED FRIENDS

SETTING HENS.

Have you ever observed that almost invariably, at the early part of the hatching season, the smaller rearers have the advantage over the larger ones, more particularly at the commencement of incubating operations. There are relatively more young birds to be seen in cottage gardens and on the smaller fields of small farmers than upon the large farms, and in the most cases the broods are numerically larger, and individually exhibit greater vitality and a more sturdy appearance.

This is doubtless the result of the more direct, personal supervision, and constant, watchful attention, of which there is a greater possibility in the case of the more limited undertakings than where more is attempted in conjunction with a multiplicity of co-existent duties. The cottage woman places her feed coops within easy distance of her back door, where the young chicks are constantly under her notice in her frequent goings and comings, in a manner more or less impossible to the farmer's wife, whose attention they divide with the dairy and other matters of perhaps greater importance, so that the care of the poultry is at times relegated to the tender mercies of a boy.

It is the continuity of direct, personal attention that is of special importance in winter rearing, and the same is true of the preceding period of incubation.

The disposition of hens is very variable, a fact which needs considerable study throughout the incubating period, the ultimate success of which depends largely upon a number of apparently simple and trifling details. The fact that incubation involves one of the most wonderful and complex processes to be found in the whole realm of nature is too often lost sight of in the ignorant disregard bred of familiarity with its externals, and it is not realized how very little carelessness is sufficient to arrest, or prevent the due growth and development of the life hidden within the shells.

At the commencement the eggs should not be placed under the hens until the birds have settled contentedly in their setting quarters, a point in which they are very dissimilar, and the disregard of which often defeats the object at the beginning. The safe plan is to place the hens in their nest boxes at night—upon china eggs—to feed them in the morning, and then to induce them to return quietly to their nests. If they do this with-

out being unduly fidgety, and remain quiet during the day, the real eggs may be introduced in the evening.

Setting hens should always be liberated at the same time every day, and fed on grain, using some corn in cold weather to maintain the bird's temperature; but punctuality in feeding is essential to prevent restlessness and the possibility of the birds standing up in their nests. They must be allowed out long enough for a proper amount of exercise and the use of the dust bath, the cleanliness of the eggs and the nesting material receiving attention meanwhile.

At about the tenth day the eggs should be tested by holding them in front of a strong light, and the infertile and addled eggs removed; the infertile will appear quite translucent, the addled will appear cloudy and spotted, and the fertile will show a dark reddish color evenly distributed throughout the greater portion of their contents. The chief reason for the removal of the infertile eggs is that, though they generate no heat themselves, they absorb it from the surrounding eggs containing living embryos. A secondary consideration is the avoidance of waste of space and time, as well as the energy of the setting hens, in that if several hens are set concurrently, the fertile eggs (which remain from the testing) may be distributed to complete the normal hatches under a sufficient number of hens, unincubated eggs being placed beneath the remainder. This will save ten days in the hatching of the fresh settings, although there are some possible disadvantages in the transference of partially incubated eggs from one hen to another; and it may be noted that the temperature of setting hens is not the same throughout the whole incubating period. This, however, probably does not vary sufficiently to materially interfere with the practical results of the method, provided the eggs are the product of a vigorous stock.

ERRORS IN FEEDING.

There are a goodly number of small poultry keepers who, after trying fowls for a year or two, give them up in disgust, as troublesome, unprofitable things. Though in reality it is a simple matter to keep hens so that they will lay enough eggs to allow a large margin for profit, there are a few conditions that must be observed. One of the most important of these is that they should be correctly fed.

The most common error in feeding is to give the birds too much, so that the food may be seen lying on the ground at all times. The egg supply, under such conditions, is poor, and the hens look dull and unhealthy. If poultry keepers would keep an account of the eggs they obtain from their fowls in the course of the year they would generally find that they do not get nearly as many eggs as they should—the result mainly of overfeeding.

Enough food should be given at each meal to be eaten eagerly and

greedily, and no more. The poultry should neither be starved nor overfed. The happy medium can be arrived at by feeding them until they begin to pick and choose, and consider which are the tit bits; and then promptly stop that meal. It is not possible to lay down any hard and fast line as to the amount of food always to be allowed, as some breeds eat more than others, individuals vary in their appetites, and hens when laying eat a good deal more than when they are not producing eggs.

It is an error to feed the big fowls and the young chickens together. When this is done the latter do not get their proper share and they are invariably trampled upon and pecked and ill treated. However small the space may be, if it is large enough to rear chickens in, some portion should always be divided, in which the youngsters can feed by themselves. A shelter for them can be easily made with a few pieces of board and some wire netting. It is particularly necessary to give young chickens food at regular times and not just as it happens to be convenient; and as they quickly go ill if offered anything stale or sour, the feeding vessels require constant attention.

Use of Damp Mash.

Fowls may be fed damp mash, dry grains or a part of each, or with dry grains entirely. The same is true of geese. Ducks must have principally damp mash. Turkeys should have no damp mash, and their food should consist entirely of grains, principally corn, wheat and oats.

We differ with this information slightly. In our experience the best food for young turkeys is corn meal dampened to a crumble only and very liberally mixed with chopped green onion, and by all the odds the most satisfactory chicks feed was a prepared moist feed.

Keep the nests clean. A hen can be discouraged from laying. I once knew a little fellow of four and a half who gathered the eggs. There was one nest in which two hens persisted in roosting, consequently it was not particularly clean. The little egg gatherer didn't approve either and finally said: "Mother, if I was a hen I would not lay in such a dirty nest either."

FREE TO FARMERS.

By special arrangements Ratkin's big 1909 seed catalogue, with a sample of "Diamond Joe's Big White" seed corn that made 153 bushels per acre, will be mailed free to every reader of this paper who are interested in the crops they grow. This big book tells how to make the farm and garden pay. It's worth dollars to all who plant or sow. Write for it and mention this paper. The address is Ratkin's Seed House, Shenandoah, Ia.

Crown Bone Cutter
Best Made Lowest Price
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THE MONEY-SAVING FENCE
is the one which, bought at the right price, gives you the best service, lasts the longest, causes you no trouble.
NATIONAL FENCE AND HOG FENCE
is just that kind. Made of heavy, sturdy wire, an in-comparable close mesh, as strong as a stone wall. Don't buy a fence until you have written us about this and our Ranger Barb Wire—a heavy, single wire with rotary barbs. Tell us what you require and we will name you delivered price.
REVOLVING BARB WIRE
DEKALB FENCE CO. DeKalb, Ill. Kansas City, Mo.

IS GRIT NEEDED BY POULTRY?

The following short article is republished from Farm Poultry, because it's unusual to find anyone attacking the need of grit. It may be that modern raising and feeding of chickens is so different from their original condition that grit is needed, and that it is a cultivated "taste." We and that it is a cultivated "taste." We and must remember our own teeth have to be treated, and filled, and crowned, and too often replaced by artificial "grinders."

Dr. J. L. Short, in the American Poultry Journal, makes this statement: "I shall oppose the popular and absurd idea that chickens require gravel to grind their food. This notion has attracted my attention for years, and the more I think of it the less credit I give it. How strange that Nature in her wisdom, power, and completeness, would create a beautiful and useful bird, and neglect to complete the important means of digesting its food!"

A reader of Farm Poultry suggested that its editor trim this fellow up, but its editor replied, "We're sorry we can't accommodate you. Fact is the writer is very much inclined to the same opinion, and has repeatedly expressed it in these columns. It has not yet been demonstrated that grit—an indigestible sharp edged substance—is essential to the fowl's digestion. The presumption that it is, is absurd. The fact that fowls swallow grit, often eagerly and sometimes in considerable quantities, does not prove that it is a necessity. It is more reasonable to suppose that the instinct or impulse to eat grit is prompted by the appetite seeking for the digestible mineral matter that may prove digestible. We do not regard it as proved that in grits which seem to be in part digestible, the indigestible portion is of any value to the fowl. Our own observations on the use of grit seem to us to indicate that when fowls in confinement and fed by man appear to need and be benefited by the mechanical action of grit in the digestive system, it is because of conditions which would not occur in nature."

A good cure for the idea that the gizzard of the fowl needs the assistance of grit to perform its functions is to test the teeth on the grinding or more properly "rubbing" surface of a gizzard, and then try to imagine what article of the food of fowls could not be reduced to pulp by so muscular an organ, after having been put through the processes of the crop and proventriculus or stomach proper."

DON'T KEEP YOUR HENS TOO WARM.

This idea of stoves or artificial heat of one kind and another in hen houses is out of date.

Hens do not require heat, but they absolutely must be kept out of draft. It isn't enough to use battens, as there will be enough cracks and knot holes to keep you doctoring all winter. Get a heavy roofing like Ruberoid, lap it liberally and cement carefully. Do this around the back and both ends and for the roof. Genasco roofing is also excellent.

The front may be simply chicken wire for the greater part, with a canvas curtain to draw up in stormy



How To Raise Them? That's the question!

Nearly every person can hatch chicks with hens or an incubator, but very few can raise the chicks. Very few know how to get them through the chick period to the dollar bringing time. Very few know how to make money by raising poultry. But there is big money in poultry and we can tell you how to get your share.

"CHICK CULTURE"

Dr. A. A. Brigham, the acknowledged poultry authority, has written a wonderful book, entitled, "Chick Culture." It covers everything from the egg to the mature fowl. It tells among other things how to hatch chicks successfully; how to quickly develop them; what to feed them and how to feed; how to construct serviceable, inexpensive houses and furnish them at little cost. It is plainly written, easily understood. It is full of practical poultry knowledge from cover to cover. Invaluable to any one who will follow its practical teachings. A full size book which thoroughly covers the subject of chick culture from beginning to end.



Dr. Brigham.

BIG SPECIAL OFFER

\$1.75 and "Chick Culture" For \$1.00

POULTRY HUSBANDRY is a leading poultry monthly magazine, edited by men well known to the profession, and contributed to by leading experts. It is always well-printed and profusely illustrated. A year's subscription is 50 cents.

FARM PRESS is published monthly, 100,000 copies and edited for the farmers all over America. Every farmer, big or little, should read Farm Press. Its many departments make it interesting to every one on the farm. One year, 25c.

GREEN'S FRUIT GROWER, a high grade monthly magazine for the fruit growing farmer and his family. Owned and edited by Charles A. Green, one of the greatest horticulturists of the day. One year, 50c.

VICK'S MAGAZINE, for over 30 years has been recognized as one of the leading family journals. It goes to over 100,000 homes every month. Every issue is a special number and its several departments are always of interest to every member of the arm family. It especially appeals to the women and young folks. One year, 50c.

"CHICK CULTURE", the great poultry book, needs to be seen to be fully appreciated by the poultryman who needs help and advice with his chickens. It covers poultry raising from A to Z. Its information is clearly told and logically arranged so as to be easily found. "Chick Culture" is worth a gold dollar to every poultry raiser, even if he has only a very small flock.

SPECIAL NOTICE

An arrangement has been made which admits of the above liberal offer being made the readers of this publication. It means that you will receive for the low price of \$1.00, one of the very best poultry papers in the country, a high grade farm paper, a horticultural, and a home magazine, all for one full year, and a copy of Dr. Brigham's book "Chick Culture." This is one of the most liberal offers ever made. Take advantage of it now. Send remittance of \$1.00 in any convenient way to

Hawkins Publishing Company, Dept. Waterville, N. Y.

P. S. The above special offer is open to our old subscribers to **POULTRY HUSBANDRY** as well as new ones. Send us your order at once and we'll advance your subscription one year.

weather. Plenty of fresh, pure air will get through the canvas.

Then the floor must be dry, and if you do not have healthy fowls and plenty of eggs it will be because you are careless about keeping the house clean and supplying fresh water, or else you know practically nothing about feeding.

Those who have not been practical breeders long enough to have worked out some grain feed for laying stock that has become a fad with them will have very much better results by feeding a prepared food such as "Puritan Laying Stock Food." The writer has used this food for two years and on it can get more and better flavored eggs than on any other. There is a small percentage of grit in it, but it's better to include grit in a prepared food because otherwise the general run of raisers will not feed it regularly. Anyone who uses Puritan Chick Food for little chicks will never use any other kind. Puritan Chick Food

is a moist food, all food, no grit or waste grains or seeds of any kind. The chicks eat up every particle of it and grow naturally—it is not a forcer.

A FEW INTERESTING FACTS.

A long, loud crow is a pretty good sign of a vigorous rooster.

A scrappy disposition in a male bird can be taken as evidence of an individuality that will be transmitted to his offspring.

Don't get the idea too strongly fixed in your mind that the male is half the flock. Each hen is just as important.

Use brains with all your work, but don't let your brains do all the work. Lots of elbow grease is necessary.

Treat your customers a little better than they expect. Competition is getting keener, and you want to stay in business more than a season.

Fruits and Vegetables

THINK ABOUT YOUR SEED ORDER.

Don't let anyone fool you on the seed question. Take plenty of time to make up your mind just exactly what you want and then buy from a seedsman you have traded with before satisfactorily. Don't be caught by flashy offers to take you away from such a dealer. There are other good seedsmen of course, but the man who has treated you right; who has taken pains to fill your order carefully and without substitution, is entitled to retain your trade so long as he does give you a square deal.

You cannot always get garden and field seeds from the same firm. There are specialists in each line and it's well to find them out. You will, from time to time.

Seed is not too plentiful this season so don't delay too long, and yet don't order before you are satisfied your list is right.

Be sure to let your wife and children pick out some flower seeds. We must feed our sense of beauty as well as our bodies.

Above all, remember that you must have fresh, pure, true-to-name seed, and that to buy cheap seed from a seedsman you do not know is the worst kind of folly.

Market gardeners are always the most careful seed buyers. Their living depends so absolutely upon good seed that they know by experience where to buy. If you are a beginner, or are not satisfied with your dealer, ask a nearby market gardener where and what to buy.

WHITE LETTUCE AND GREEN CABBAGE.

There is such a difference between the American and English manner of growing cabbage and lettuce for the table. With us the cabbage is encouraged to form a head, and when the leaves show a disposition to spread the gardeners sometimes go so far even as to tie a string around the clump to make the leaves grow together. In England, on the other hand, the efforts of the growers are directed toward keeping cabbage green, and they pull the leaves apart so as to expose all portions to the light and give them a dark, rich color.

We like our lettuce green, but the English want theirs headed up and blanched, so as to have it as white as our cabbage; or in other words, they simply reverse our practice, and instead of white cabbage and green lettuce they like green cabbage and white lettuce. Of course it is only a matter of taste, but still the difference is rather curious.

We are, however, getting into the habit of eating head lettuce. The New York market, for instance, can sell nothing but head lettuce, excepting the Romaine variety.

In regard to green cabbage. Did you every try it boiled with a bit of salt pork, not smoked, or beef? If you will try it we guarantee there will be more of it used.

THE BEST CROP TO GROW.

Is the one your neighbors are discarding. It is frequently the case, when prices for a particular crop are low, that some other crop is grown instead which causes a scarcity of the abandoned crop, the result being higher prices. The object should be to grow that for which there may possibly be a demand; but, no matter what the crop may be, it should be given the necessary care and management to secure the largest yield and highest quality in order to grow it at the lowest proportionate cost.

We know of one farmer-gardener who pays all his grocery bills off a comparatively small patch of parsnips. No one in his locality had been growing them and comparatively few of the townspeople nearby knew how delicious a properly grown and cooked parsnip could be. He was fond of them himself and it was not so very long before he became famous for his parsnips, and had call for all he grew at fine prices.

Some people seem to have a knack of doing splendidly with some things and making a near failure of everything else. Consider this, too, and stick to your specialty. If the market is not all ready for it you can frequently make a market yourself. It's worth trying.

Wonderful Results of Intensive Farming.

As a rule our farms are far too large; we have more land than we can cultivate thoroughly.

The possibilities of a small farm under intensive cultivation, are strikingly shown in the following record of production from eleven acres: 3,615 bunches of radishes, 30 bushels of white china radishes, 775 bushels of onions, 1,800 boxes of strawberries, 673 bunches and 20 bushels of beets, 500 quarts of lima beans, 12 bushels of soup beans, 75 bushels of peas, 63 bushels of string beans, 125 bushels of potatoes, 440 baskets of tomatoes, 1,000 heads of lettuce, 5,000 heads of cabbage, 600 dozen ears of corn, 125 baskets of egg plant, 100,000 pickles, 40 bushels of turnips, 12 bushels of carrots, 35 bushels of parsnips, 1,000 roots of horseradish, 2,000 stalks of endive, 20,000 stalks of celery, 25 bushels of artichokes and eight bushels of popcorn.

This little farm is located near Reading, Pa., and there are many more like it. As the cost of land advances, cultivation must be more intensive to make the investment profitable.

It would be interesting to know the net results on this particular farm. To have a standard to compare with keeps our efforts up to the mark, first, to catch up, then to establish a new record.

As our women folks become more proficient in cooking vegetables their consumption will increase enormously. Simple as it is may seem there are still comparatively few who really understand how to cook our old friend the potato to make it delicious to eat.

FIRE DEAFNESS CURE.

A remarkable offer by one of the leading ear specialists in this country, who will send two months' medicine free to prove his ability to cure Deafness, Head Noises and Catarrh. Address Dr. G. M. Branaman, 1548 Walnut

BLOODED STOCK for January—1909.

A CHEAP HOTBED.

Make an excavation of the desired length and breadth and eighteen inches deep. Be careful to locate your bed in a place where there will be no seepage. Just below a hill-side ditch is a good site. Fill about one foot in the bottom with fine brush. Be careful to cut the brush line and press it down well. Fill in and tightly pack four inches of cow manure. Cover the surface to the desired nearness on the top with rich, sandy soil. You may now plant any kind of seed which you desire to have an early start for transplanting or any other purpose. Cover the seeds so the surface of the bed will be within an inch of the surface of the ground. Keep the bed moist with warm water and it will begin to heat with glass (or boards preferred) to keep out all cold and rain.

Boards will answer for a while, but glass must be used when the sprouts come through the ground, for the plants must have light, and sun, to be strong.

They must also have ventilation by raising the sash.

This was not the way father made his hotbeds when I was a boy over thirty years ago, but is undoubtedly more economical as far as manure is concerned.

Is it hallowed memory that lettuce was so much more delicate, tender and crisp then, or are we really sacrificing these qualities nowadays to size and density of head? I am afraid so.

THE FRUIT FARMER AS THE WORLD'S PHYSICIAN.

The sales of apples, as well as the sales of all fruits as to that, can best be increased by bringing home the dietetic virtues of the grand old apple to the minds of the teeming millions in the cities and towns. It still remains the grandest fruit which ripens under the sun. When the consumers of all nations recognize the apple at its real worth it will be consumed in enormous quantities and the profits of the fruit farmers, who are doing a noble work quite apart from money making in helping to improve the health of the people by the provision of vitalizing fruits, will be improved at the same time. The fruit farmer is the best and greatest modern physician the world has seen. Fruit eating makes for health and strength. Eat fruit freely that your days may be long in the land is a good text for the commercial fruit distributors to bring under the notice of the city workers. The well matured apple contains 84.6 per cent. of invaluable fruit juices, blood purifiers of the highest order, and in addition it contains 13 per cent of nitrogen free

U.S.W. FIELD and HOG FENCE

Highest quality—superior lock—easily erected—strong—low priced.

Write us, stating what you can use and we will name you special delivered price.

We make the largest line of poultry, lawn and field fencing in the country.

DeKalb, Illinois
Kansas City, Missouri
UNION FENCE CO.

BLOODED STOCK for January—1909.

extract. There is no cure like the fruit cure.

Of late years retail prices of apples have been almost prohibitive for ordinary mortals. Were prices with-in reason, the consumption of apples would double many times, and there would be just as much profit for the grower too. Better fruit on the average must be grown, and that means more enlightened care of the orchard, and the annual setting out of more trees of best varieties.

Number of Apple Trees.

W. U. White, an authority on the subject of American apples, says that on June 30, 1908, there were 201,794,642 apple trees in the United States, including every state and Territory, except Alaska, where climatic conditions preclude apple culture.

The leading apple States are:

State.	No. Trees.
Missouri	20,040,399
New York	15,054,832
Illinois	13,450,006
Ohio	12,952,625
Kansas	11,848,070
Pennsylvania	11,774,211
Michigan	10,927,899

QUAINT OLD SUPERSTITIONS CONCERNING THE APPLE.

There is a mine of quaint and superstitious customs connected with the apple which would make capital reading if all the instances on record could be gathered between the covers of a volume. The apple in times past has been used as an omen of luck—good and bad—success in love and marriage, and in some cases to ward off disease.

A curious yet romantic belief which still exists in some parts of the south of England is to fasten several apples onto strings, after which the strings are hung and twirled before the fire. The owner of the apple which first falls off will soon be married. As each one's apple falls off so does the order of matrimony proceed. Single bliss is the lot of the owner of the last apple left on the string.

In times past the apple has played a prominent part in the traditions of Scotland, and even now in the Highlands the peeling of an apple to reveal the letter of a young girl's future husband's name is regarded with superstitious awe. The romantic maiden procures a large apple and proceeds to pare it. If the peel breaks there is a calamity ahead and an interrupted love. If it break twice, once while being pared and again while being thrown, then it means still more disaster, for the twice parted peel means twice parted love.

But if the peel be safely taken from the apple, safely tossed around the head three times, and safely thrown to the ground so that it makes a letter on the floor, then it becomes an agent of fate, and as such will help the girl in deciphering the first letter of her future lover's name.

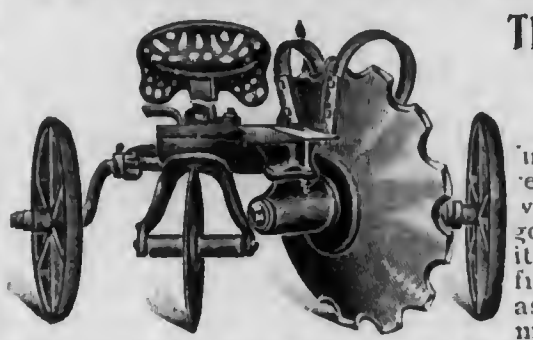
More generally known, and at the same time more weirdlike and fearful in character, is the celebrated spell of eating an apple before a looking glass with a view of discovering the inquirer's future husband, who, it is believed, will be seen peeping over her shoulder.

Many of these traditions which were taken so seriously by our an-

CLARK'S REVERSIBLE CUTAWAY SULKY

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(Largest Seed Corn Growers in the World)

cestors have developed in this enlightened age into a pastime for merry social gatherings. Some of the old Hallowe'en customs, which are still believed in in some parts of the country, are turned into forms of popular amusement. A notable example of the custom is hanging a stick horizontally by a string from the ceiling, and putting a candle on the one end and an apple on the other. The stick being made to twirl rapidly, the merry-makers in succession leap up and snatch at the apple with their teeth, no hands being allowed, but it frequently happens that the candle comes round before they are aware, and scorches them in the face or smotherers them with grease.

A more serious and recent custom, however, consists of a bowl of water with a number of apples floating about. Fond mothers have to drop forks into the water from a distance of about four feet with the hope of piercing the apple. If this is done successfully the feat is said to protect their children from catching cold.

FERNS FOR FOOD.

Recent study of the dietary of the Japanese shows that they utilize as vegetables not only water weeds and lichens but also several species of ferns. One of the foods regularly supplied to the Mikado's troops during the recent war with Russia was a kind of dried fern biscuit.

Most of these edible ferns grow wild in the United States, but nobody ever thinks of utilizing them.

There is a kind of fern known in Japan as warabi, which sends out roots in all directions to a distance. In spring these rootlets throw up fine sprouts, which are esteemed a delicacy. Poor Japanese obtain from the woody stems of the same plant an edible, starchy substance which they call warabiko. In Normandy the root stocks of this species of fern are ground up and mixed with flour for bread for the sake of their bitter taste—to which, however, one must become accustomed in order to like it. The fibres of these root stocks in Japan are used for making a kind of rope which while very strong resists the action of water. It does not rot as does ordinary rope when constantly wet.

A species of fern that grows wild in swampy places in Japan is much valued for food, its young leaves being gathered in late spring by women and children and cooked as a vegetable. This variety also is found in the United States.

There isn't anything very much better for breakfast than baked apples, oat meal, soft boiled, or poached, eggs, and brown bread (not the Boston variety, thank you) with good butter.

(Continued from Page 3)

given to hide under a bushel.

Above all be kind and gentle and patient. Constrain your neighbors to honor and love you. At the same time be strong and fearless in driving out wrong.

XII. We can add nothing to this answer that would not really be saying the same thing in different words. It is very concise and true. It might easily be elaborated upon but we would have to drift back to the same point in the end—that the weak point in farming today is salesmanship. Farming is a business, not only of production but of selling, and modern methods of business insist upon scientific selling.

We must not by any means lose ground in production, but let the next forward movement be better, more careful, more profitable selling.

A GENEROUS OFFER.

The special attention of our readers is called to the very liberal offer on another page of this issue, by the Hawkins Publishing Co., who publish that excellent poultry paper, Poultry Husbandry. Arrangements have been made with three other excellent papers for the farm whereby the four papers may be had for one year together with "Chick Culture," a very valuable book on poultry raising, by Dr. A. A. Brigham, all for one dollar. Read the advertisement clear through for the offer will certainly interest you. And when sending in your order, please mention Blooded Stock.

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HOME BEAUTIFUL

THE CHRIST-LIKE SUNDAY SCHOOL TEACHER.

Love of Children and Enthusiasm.

It often happens that the little things are the hardest to do. History is filled with great epoch-making acts that required no appeal to the feelings, and yet, when it comes to the apparently simple, insignificant teaching of a lesson familiar to us all since babyhood, to a half dozen or so youngsters, for a few minutes on Sunday, hopeless failure must be the result unless our efforts are guided by the greatest of all motives, love.

The great State steps in and assumes full responsibility for the proper training of our children to live, and forces us to take advantage of what she offers. So thorough is her organization and so complete her system that little is left for the individual effort of the teacher save to follow a routine already laid down for him, to draw a fairly good salary, and to enjoy a long holiday when the warm weather arrives.

But when we come to spiritual affairs, all is chaos. No state says what we shall teach, nor how we shall teach it. No supreme authority says we must send our little ones to Sunday School, and lays down rules of discipline that are involuntarily obeyed.

What state in the Union maintains out of the public treasury a normal school for the training of Sunday School teachers?

There are as many systems as there are churches, as many modifications of these plans as there are superintendents, and as many treatments of the lessons, as teachers.

The Superintendent is generally a busy layman whose six days are taken up with the struggle to live. Rarely has he had any special training to fit him for the position, and it is only now and again that he has an opportunity to see what others are doing along the same line.

Teachers are volunteers, for the greater part, unskilled.

So many parents are indifferent, or at least luke warm, that their children attend or remain away largely as they themselves see fit.

Instruction in the lesson laid down for the day is but a small part of the teacher's task. Upon his shoulders is nowadays shifted almost the entire responsibility for the child's moral bringing up; he must maintain order; he must keep the records; he must frequently furnish supplies at his own expense; and he must see to it that his Christmas gifts average up favorably with other schools or there is a vacancy in the class next Sunday.

And yet, because of our love for the little ones, and faithfulness to the Master's work, we are able to forget the discouragements, overcome the defects, and each year present to the church an ever increasing multitude of young men and young women with at least a fair foundation of Christian knowledge.

Teachers are hard to get, and we cannot, therefore, afford to inquire

too closely into their reasons for taking classes, nor complain of lack of fitness or adaptability. Time works out the selection and those who remain year after year are those who have qualified through a constantly increasing love of the work.

A new teacher for a change, a novel method of keeping the record of attendance, or an unusual presentation of the lesson, will interest and hold your class for an occasional Sunday but for the long, steady pull, the pull that means results, you must fall back upon the influence won through love and sympathy.

Love makes us prayerful. Love makes us hopeful.

Love makes us gentle, sympathetic, approachable, tolerant.

Love checks impatience, and prevents injustice and unfairness.

Love will not allow us to make scholarship the only basis of interest.

Love opens our eyes to the marvelous capacity and intricate workings of the child mind.

Love enables us to see as he sees, to hear as he hears, to think as he thinks.

And withal love makes us persevering, persistent and determined.

No matter how undisciplined, unrefined and antagonistic your scholar may be, love begets love, and it's only a question of how soon your love for him, your interest in him, your trust and confidence, may break down all opposition, and you have won his loyalty and devotion so long as memory lasts.

There is no longer a question of discipline, no longer this excuse for failure, you hold in your heart the faith and confidence of these spiritually undeveloped minds, and yours is the responsibility to lead them to Him who said, "Forbid them not."

"Solitude is the nurse of enthusiasm," and this is the only enthusiasm such a teacher needs.

As you close your eyes and think out the lesson for next Sunday, and plan just how you will apply it to appeal most effectively to each young mind, your heart warms and finally burns within you, until you fairly bound from the chair with eagerness for one more struggle.

"As each one wishes his children to be, so they are." Forget force and try to lead; forget the bad Sunday when everything seems to go wrong, in His own good time you will have your reward in the knowledge that through your instrumentality the light has come to one more Child of God.

This is one of a score or more three minute papers read before fortnightly meetings of Sunday School teachers this fall in an Eastern town of five thousand inhabitants. Earlier in the season the papers were on more practical subjects. The whole course covered about eight meetings and closed with a feeling that much good had been accomplished. The Presbyterian, Episcopal, Reformed, Congregational and Methodist bodies all worked in happy accord and the idea will be repeated towards spring, or certainly next fall.

DELICIOUS DISHES OF CORN MEAL.

In its preparation for food corn requires long, slow cooking. By this process the cellulose (crude fiber) of the cell walls is broken down and the nutrient materials of the grain are made more accessible to the actions of the digestive juices.

Apple Johnny Cake.

Two cups corn meal, two tablespoonfuls sugar, half teaspoonful salt, one teaspoonful soda, half cup milk, one teaspoonful cream tartar, one and three-quarters cups milk, three tart apples, pared and sliced; cinnamon and sugar. Mix the first six ingredients in the order given, beat thoroughly, add apples, mix well. Pour into a well buttered shallow cake pan. Pour the last half cup milk over the top of cake before putting into the oven and bake 30 minutes in hot oven.

Indian Bannocks.

One cup corn meal, one teaspoonful maple sugar or syrup, one teaspoonful salt, two cups scalded milk, two eggs. Add corn meal to scalded milk, add syrup, and salt; cool and add yolks beaten very lightly, then the whites beaten stiff. Bake in shallow pudding dish, well greased, in very hot oven, 25 minutes. Serve in pudding dish.

Hasty Pudding—Corn Meal Mush.

Hasty Pudding, properly made and cooked at a low temperature for five or six hours, or over night in a fireless cooker is one of the most delicious which can be served; and the six generous portions prepared by this recipe, served with thin or "berry cream," will not exceed in cost 16 cents; and it contains every element to support life, promote growth and repair waste at a minimum cost. If milk is substituted for cream the cost will be still less, with little change in the food value.

Put one quart of boiling water in top of the double boiler, add one and one-half teaspoonfuls salt, mix two cups yellow or white corn meal with two cups of cold milk, stir this slowly into the boiling water, boil five minutes, stirring constantly, then place vessel over hot water, let cook three hours, stirring occasionally to prevent lumping. The longer it steams the more delicious the flavor; serve with milk or cream. If white and yellow corn meal is made into "Hasty Pudding" in separate vessels, then packed in alternate layers in a brick-shaped mold, then sliced cold and served with cream, it makes a very attractive dish.

Fried Hasty Pudding.

Prepare as corn meal mush; pack solidly in a wet granite brick-shaped bread pan; when cold cut in three-quarter inch slices; either dip in flour and fry in hot fat or fry without dipping; brown richly on one side then turn and brown on the other. These slices may be dipped in egg and fine cracker crumbs, and fried in deep, hot fat. Serve with crisp bacon.

Corn Meal Dodgers.

Two cups fine white corn meal, one tablespoonful sugar, two eggs, one teaspoonful butter or lard, half teaspoonful salt, three tablespoonfuls rich milk, boiling water. Mix and sift corn meal, salt and sugar; add sufficient boiling water to wet the meal, but not to make it soft; add butter and milk; when cold add the yolks beaten very light; then cut and fold in the whites beaten stiff. The batter should drop readily from the spoon, but not thin enough to pour nor stiff enough to be scraped from the bowl. Shape in oval cakes, and lay in a hissing hot, well greased dripping pan, and bake in a very hot oven until brown and puffed; split, butter and serve with friend salt pork with cream sauce.

Rice Corn Cakes.

Three-fourths cup corn meal, one cup white flour, four teaspoonfuls baking powder, four tablespoonfuls sugar, one teaspoonful salt, one cup thin cream, two eggs, one tablespoonful melted butter. Mix and sift the dry ingredients, add cream slowly, beating continually, add melted butter and eggs beaten very light. Pour mixture into a shallow well buttered pan and bake 20 minutes in a hot oven.

Spider Corn Cake.

Three-fourths cup corn meal, fourth cup flour, two tablespoonfuls sugar, one teaspoonful salt, one teaspoonful soda, half cup sweet milk, one egg well beaten, half cup sour milk, two tablespoonfuls melted butter, half cup sweet milk. Sift together, corn meal, flour, sugar, salt and soda. Add half cup sweet milk and egg well beaten. Add sour milk and butter. Mix thoroughly and pour into well buttered hot spider. Pour half cup sweet milk carefully over the top of corn cake. Cook 10 minutes on top of range and 20 minutes in the oven.

Corn Meal Sponge Muffins.

Half cup corn meal, one cup scalded milk, one tablespoonful butter, half teaspoonful salt, four tablespoonfuls sugar, one-fourth cup flour, two tablespoonfuls baking powder, two eggs. Add corn meal to scalded milk, add butter and salt, let cook until thickened; cool; add sugar and eggs beaten very light, flour sifted with baking powder; beat 2 minutes. Pour into hot buttered iron gem cups and bake 20 minutes in hot oven.

"Pete's" Corn Meal Griddle Cakes.

Two cups corn meal, one cup flour, two eggs well beaten, one teaspoonful salt, one and a half teaspoonfuls soda, two and a half cups buttermilk or loppered milk. Mix and sift corn meal, flour and salt, add eggs, mix well. Dissolve soda in milk; add to first mixture. Beat thoroughly and fry at once. If allowed to stand too long mixture thickens; may be thinned by adding more milk. The sour milk must be rich. Buttermilk is best for this purpose.

Dainty Spoon Corn Cake.

One-fourth cup corn meal, one teaspoonful butter, two teaspoonfuls sugar, one-half teaspoonful salt, three eggs, two cups scalded milk. Stir meal into scalded milk, add salt and let cook until mixture is slightly thickened, add butter and sugar; add

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yolks beaten very lightly, lastly cut and fold in the whites of eggs beaten stiff. Pour into buttered pudding dish, bake thirty minutes in hot oven. Serve from baking dish with spoon.

Southern Spoon Corn Bread.

Pour two cups boiling water over one cup corn meal, cook five minutes, stirring continually. Add one tablespoonful butter, two eggs well beaten, one cup milk, one teaspoonful salt; beat thoroughly, pour into well greased baking dish and bake thirty-five minutes in hot oven. Serve from the dish in which it is baked.

Danish Apple Cake.—One cup flour, one-third cup butter, half cup brown sugar, one egg and a pinch of flour, well worked together. Mold on a board, using as little flour as possible, cut into three parts, and roll each to fill a pie plate. Bake until light brown in a slow oven. Peel and boil a few apples as if for sauce, rub through a sieve, sweeten, season with cinnamon, and spread over the cake layers half an inch thick. Then cover with the following cream: One and one-half cups rich milk, one tablespoonful of butter, half cup of sugar. When about to boil, thicken with one well beaten egg and one tablespoonful of corn-starch stirred smooth with a little milk, and lemon extract to taste. Pour over the cake while warm and set away for 24 hours in a cool place.

This certainly sounds good enough to eat.

Apple Frappe.—Bake one dozen large, sour apples until soft and press through a sieve; add twice the bulk in newly made sweet cider and freeze. This may be served if you wish in cups covered with yellow custard. We would prefer it without.

Apple Salad.—One pint of tart apples, chopped rather fine, one-half pint orange pulp, one-half pint celery, mixed together with mayonnaise dressing. Place in red apple cups and put a teaspoonful of whipped cream on top of each.

STILL ANOTHER WAY TO ROAST A TURKEY.

This noble bird is always so delicious that few inexperienced cooks realize how many ways there are to prepare "roast turkey." After it is cleaned and stuffed, rub with salt and spread the breast, wings and legs with a little butter, creamed and worked with one-fourth cupful of flour. Dredge the pan with flour and tie a few strips of bacon over the breast of the bird. Paste every fifteen min-

utes, turning the pan that it may brown evenly.

Chestnut and oyster stuffing, as well as the old-time plain stuffing are popular, but this imitation chestnut filling is excellent: Cook one-half tablespoonful of chopped onion with a tablespoonful of butter for five minutes. Add a quarter of a pound of sausage meat and cook slowly another five minutes. Then add one heaping cupful of mashed sweet potatoes, one-half tablespoonful of finely chopped parsley and seasoning. Heat thoroughly and add one-half cupful of stale bread-crumbs.

There is nothing else which sweetens utensils in which milk has been kept, so well as a solution of strong baking soda, and hot water, in the proportion of a level teaspoonful to a quart of warm water. Let the solution stand in the utensils long enough to get cold. Pudding dishes, and pots and pans that have been burned with their contents are easily cleaned in this way.

A few drops of vinegar in the water in which eggs are poached will keep the white in shape and not add a flavor.

The secret of the subtle flavor of the scalloped oysters prepared by New England housewives is the addition of a little mace.

Another Seasoning for Sausage.

To twelve and one-half pounds of pork, ground nicely, add three tablespoonfuls of salt, two of black pepper, one-half spoonful of cayenne, two of thyme, pulverized, two of sage and one teaspoonful of saltpeter.

No use shirking the work when you are fighting vermin on your poultry, and you should fight them every day. They cause more loss one way and another than all other troubles combined. I have known twice as much feed to be given to lousy birds as necessary, and then they would not gain in weight. There is an easy way to figure up loss.

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ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

A THRIFTY YOUNG FARMER. What Shall He Do With His Money? Shall He Marry?

A young man has a small farm and a good comfortable home free of debt. He makes a specialty of fruit growing and is making a little surplus each year, which he puts in the savings bank at 4 per cent interest, and wonders if this is the best he can do with it. He has already had advice but we want to say what we think about it.

In the first place, remember we owe something to others. We are in reality our brother's keeper, and are bound to extend a helping hand here and there where it is needed, and it must not always be an empty hand. There are hospitals, orphans' homes, homes for the old and helpless poor. Each of these has a legitimate claim upon us. The church cannot do its work without the whole hearted interest and support of all of us.

A young man who is of sufficient force and character to pay for his place and have something left over each year is not the man to forget such claims and privileges, and yet some of us do get so interested in what we are doing that we grow selfish now and again.

Of course we owe something to ourselves and the bank is the place to keep your money until we see a bargain in land, then buy land, land, if the price is not fancy, is by far the best investment one can make.

Don't be afraid of the banks—not a dollar of depositors' money has been lost in the savings banks of New York State in nearly half a century.

Our young friend is very much interested in a young woman and wonders how much money he must have saved up before he ought to marry.

So much depends upon the young woman—we know this man is careful and competent. Such men do sometimes pick out a "high flyer." Men have taken such partners, and in five years been practically bankrupt. Others with a surplus of several thousands with little more than enough to begin housekeeping, have married, and in a few years grown into comfortable financial circumstances. Much depends upon the man, and a great deal upon the wife. If a man is fairly supplied with good, common, business sense, and the woman understands household economy pretty well, there is no reason under the sun why they should not make much better progress together than singly. Give a steady young man, with a reasonable show for making a living, a wife that has his interests at heart, and he is almost sure to climb financially, morally and socially. He should be certain that the girl understands her part in making and keeping a home. If she does, he needs very little surplus to begin business on. If she has ideas away above his circumstances he would better look a little farther. Some young women value their skill in playing the piano far above that of preparing and cooking an appetizing meal economically,

and these are good things to steer clear of. Not that music isn't pleasant, but good food is better. Skill in duties comes first; in amusements next. If she is a sensible young woman, well posted in the art of home making, by all means marry and be happy and of still greater use in the world.

THE TREMENDOUS IMPORTANCE OF OUR CORN CROP.

Hon. James Wilson, Secretary of Agriculture, in the last report of the U. S. Department of Agriculture, writes of corn as follows:

"Four-fifths of the world's production of corn, as nearly as can be determined, grows in the United States, and in the world's international trade in corn, this country contributes one-third to one-half of the exports, not including the products of corn-fed animals.

Factor in National Prosperity.

Corn is the crop of crops, and exceeds every other prominent agricultural factor of national prosperity. It is a human food, and more especially a live-stock feed, with striking results. It is one of the great motive powers in the food of an energetic age. The starch of corn produces the fat of the hog and the "finish" of the steer. No meat products are so much in demand in international trade as animal fats and oils. The value of these is more than one-half of the value of all exports of meat, animal and packing house products from this country. It is from four-fifths to nine-tenths the value of these exports to Germany, to Italy, and to Norway and Sweden; and from two-thirds to four-fifths of these exports to France, and nine-tenths of these exports to Austria-Hungary, Denmark and the Netherlands.

Fears of failure, or a large degree of failure, of the corn crop this year, diminished after mid-summer, and at last the harvest secured 2,553,732,000 bushels, a production that is almost the average of the crops of the preceding five years. There have been three larger crops—those of 1899, 1905 and 1906.

Its Fabulous Value.

In value the corn crop of this year is much above the high-water mark of 1906. On the assumption that the crop will be sold by farmers at an average price not below the present one its value is estimated to be \$1,350,000,000, or 26 per cent above the average value of the previous five crops. Four crops before have exceeded one billion dollars in value.

The farm value of the corn crop of eight such years as 1907 would pay for duplicating every mile of steam railroads in the United States, and pay for their costly terminals, rolling stock and all property. In thirteen years it would replace the present banking power of this country in banking capital, surplus, deposits and circulation."

When we think that each extra bushel we raise goes to swell this enormous total, we make up our mind to be more careful to replant each hill, to cultivate more frequently, and to save every stalk as though the continuing of the crop depended upon us.

There is really terrible waste in our methods, and one reason is that we have twice too much land. Less land

and more intensive, far more intensive, cultivation is what we positively will come to.

SAVE AND USE EVERYTHING THAT COUNTS.

Despite the fact that fourteen bushels of wheat is about the average yield in this country, our farmers have not yet comprehended the importance of doubling the yield. Having plenty of land they look more to the area than to the substances from which crops are grown. Millions of gallons of liquid manure are wasted every year because no adequate provision is made for preventing its loss, and farms become poorer because a portion of the products of the farms flows away with every rain that comes down upon the manure heap. The waste materials that are of no value, such as weeds and rubbish, are allowed to damage in various ways, and even the solids of the manure lost much of their value through lack of proper precaution.

Such conditions are found generally on farms that have too much land in proportion to equipment. The labor that should be applied where it would prove most valuable is scattered over too much land. The effort to raise fourteen bushels of wheat on an acre is twice as costly as double the yield, because a profit may be possible in one case and impossible in the other. Everything not sold off the farm has value and is worth as much to the farmer as to the buyer of his produce. It is as important that he save and utilize his product, whether in the form of stock, crops or manure, as it is to send it to market to be sold for cash.

Cultivate less land and cultivate for all there is in it.

THE OWNER OF DAN PATCH GIVES SOME LATE FACTS IN REGARD TO THE WORLD'S CHAMPION.

Editor Blooded Stock, Oxford, Pa.: Dear Sir:—During the past few months I have noticed the various comments printed about Dan Patch and his 1908 performances. Some of these have been written in all fairness to the fastest horse that ever lived, and have been based on facts. Others seem to have been written under pressure or prejudice or based on absolute ignorance.

We have many truly great and fast horses in this country and new ones will develop from time to time. As a horse breeder I certainly believe this or I would not continue in the business. I do not wish to appear as trying to detract from the greatness of any horse, but simply to state facts about Dan Patch.

Early in the summer I stated that Dan Patch was faster than ever, and that although he was twelve years old, he would pace the fastest mile in his life. Dan's first fast mile this year was the last week of August, when he paced a mile in 2.00, with every eighth in fifteen seconds. At that time I told Hersey that his first mile proved my statement and that it was the easiest and best mile I ever saw Dan pace and I saw his miles in 1.55 1/4 and 1.55. Dan's second performance was a mile in 1.58 3/4, finish-

ed where a tremendous crowd had taken possession of the track with just room enough for Dan to pass between the crowding people. His third mile was in 1.58 and his fourth mile was paced in 1.57 1/4. On October 11th, at Lexington, Dan paced the first quarter in twenty-nine seconds and the second quarter in twenty-seven and one-half seconds, a 1.50 clip. He was at the half in 56 1/2 seconds, a 1.53 clip, and at the three quarters in 1.25 1/2. At the seven eighths the pacemaker, driven by Scot Hudson, broke a blood vessel and slackened down enough to shorten Dan's tremendous stride of twenty-two feet and yet Dan Patch finished that mile in 1.56 1/4, which all fair-minded men must acknowledge was by far the fastest and greatest mile in the life of the fastest harness horse in the world. Hersey states that when this happened that Dan was going easy and was not tiring and that, barring the accident to pacemaker, Dan would have surely beaten 1.55. In no other year has Dan ever started out with a mile in 2.00 and then reduced it every performance. His last mile is absolute proof that Dan Patch in his twelfth year was faster than ever, which is doubly remarkable from the fact that Dan has been performing these world famous miles for six years.

From some of the comments I have seen printed the readers would be led to believe that it was a very ordinary event for a horse to pace faster miles at twelve years of age than any other pacer has approached at any age. I am sure the facts bear me out in my statement that Dan's performances in 1908 were the most remarkable in his entire life and indisputable proof that he was faster than ever. Is it not an astonishing event in all harness horse history when Dan Patch, at twelve years of age, paces the fastest mile in all his wonderful career? Dan returned to my farm in good shape and is jogging sound and full of life and energy. I have no doubt but that he will be able to give a good account of himself in speed performances during 1909, to the gratification of his millions of warm friends.

I will make the prediction right here that Dan Patch will pace faster miles in 1909 than have ever been paced by any other horse."

Very truly yours,
(Signed) M. W. Savage.

MR. HARRIMAN'S PLEA FOR FAIR PLAY FOR THE RAILWAYS.

No reader of our paper is so narrow or unfair that he is not always willing to hear both sides of the story, and to give each a square deal. Whatever there may be against Mr. Harriman, he is one of the greatest railroad managers and financiers America has produced, and when he makes a statement it is received very respectfully and thoughtfully by his brother managers and financiers.

Undoubtedly millions and millions of worthless stock have been foisted upon us, but, so far as the railways are concerned, this country is young yet, and with the passing of each dozen or so years their property has become more valuable, and in the end there will be a dollar's actual value for each dollar of capital stock.

Long chances have to be taken, railroads have been extended far in-

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to almost unknown lands in the faith that civilization, population and trade would follow. Those who captained the advance are entitled to reward, a liberal reward, and men of such calibre cannot but be reasonable in the long run. They may have their selfish and heartless periods, just as all of us have, but they are bound to swing into line.

Who is to say what a reasonable return for capital, no matter whether it be labor or money, genius or learning, discovery or invention, may be? If the net earnings of the railroads of this country are only about four per cent they are too low, and if this is the result of over capitalization, the trouble will right itself, at least in a measure. It can hardly be from bad management when we know the marvelous men who have been engaged in it.

For the real benefits of all, railroads and all other public service corporations, must be made to feel they are not at the mercy of political demagogues whose periodical outbreaks are merely a play to the gallery and to cover their uselessness and imbecility, but that they must submit to fair, judicious oversight and regulation by wisely elected or appointed Government officials.

Nor do we know of any such corporation that takes a determined stand against such regulation. And in their fight against their tremendous and intricate business being under the inspection and regulation of incapable, inexperienced, uninformed men, we should feel as we would if city loafers were detailed by the government to look over our farms when it best suited them, and to say how we should sow and reap, and at what prices we should sell what might with good luck be left to us after they had finished.

But let us read in part what Mr. Harriman had to say, a few days ago, to the American Mining Congress, in session at Pittsburgh:

"The managers and the stockholders of railways in this country realize that they must make rates that will enable the industries located along one railway line to compete with those located along other railway lines. They also realize that even the great transcontinental systems of rates must be such as will enable the industries of this country to compete with those in other countries. They also realize—and you will admit the justice of the claim—that the freight charges must be such as to permit the railroad to do its work properly and yield fair returns to the men and women of this country whose savings have

helped to build and improve the railroads.

Let me call your attention also to the fact that as the country is developing and as the railways are developing freight rates have been diminishing. Thus the freight rates per ton per mile on the railways of the United States were 1.89 cents in 1870, 1.2 cents in 1880, .94 cent in 1890, .84 cent in 1895, .73 cent in 1900, .76 in 1905 and .75 cent in 1907.

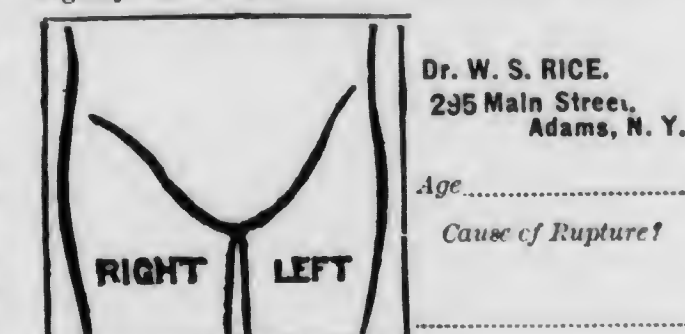
The transportation conditions in European countries are quite different from those in the United States. Nevertheless reference is often made to the low freight charges in other countries. It may therefore in the present connection be worth while to call attention to the fact that during the year 1906 in the larger European countries the freight receipts per ton per mile were nearly twice those in the United States during the same year, and during that year the lower rates per ton per mile at which the American railways carried freight, contrasted with the rates per ton per mile received by the European railways, were equivalent to a saving by the people of this country of over \$1,000,000,000.

The people of this country desire to be fair and they desire to see all interests treated fairly, but owing to a lack of information concerning many of the fundamental factors in transportation there is danger that the needed development of transportation facilities may be retarded or prevented through the unjust treatment of the investors in railroads.

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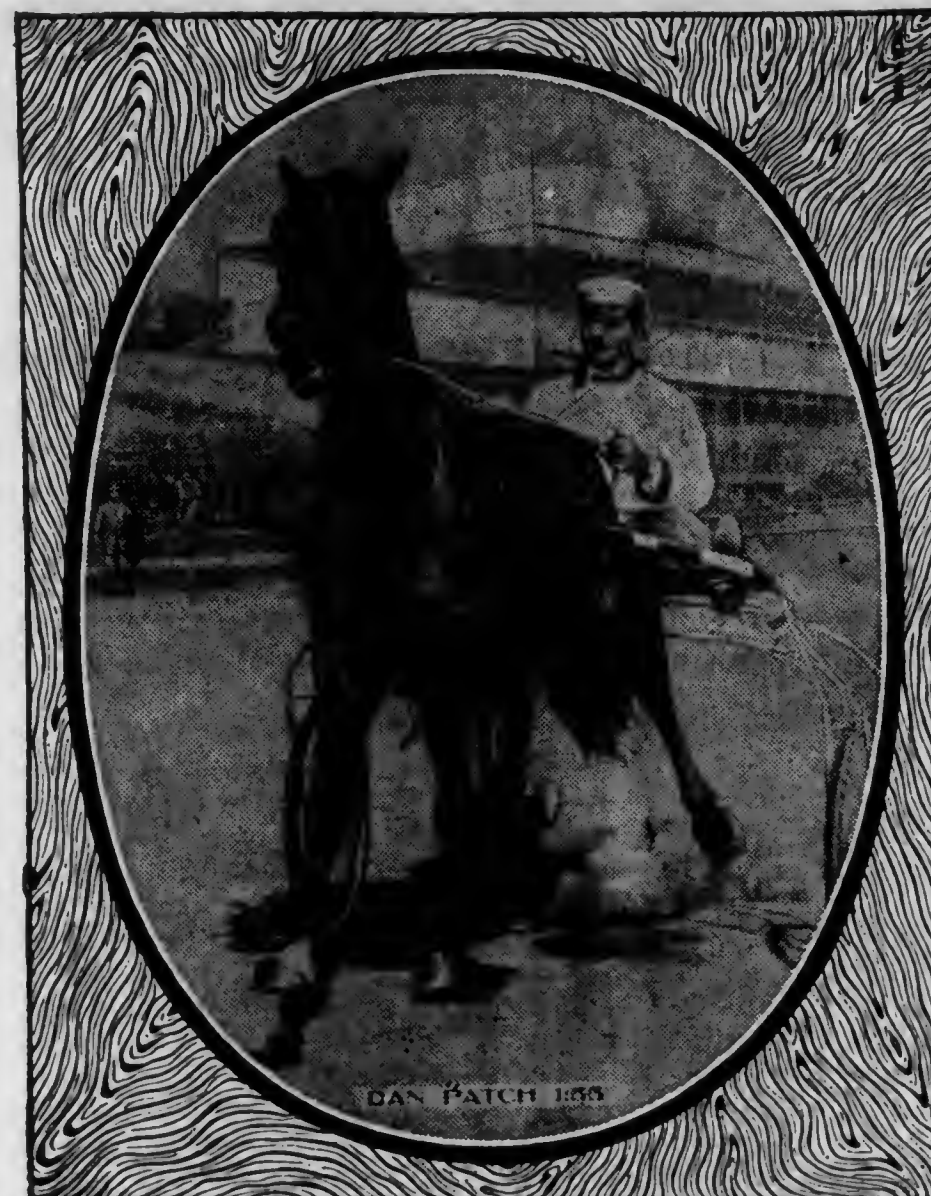


Dr. W. S. RICE,
235 Main Street,
Adams, N. Y.

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Cause of Rupture.....

Name.....

Address.....



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DAN PATCH 1:55
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This new picture of Dan Patch 1:55, is the finest I have ever gotten out for framing. It is 21 inches by 28 inches, is printed in six brilliant colors and is free of advertising. It gives his age and a list of all the fast miles paced by Dan. Being made from a "Speed Photograph" it shows Dan as lifelike as if you stood on the track and saw him in one of his marvelous and thrilling speed exhibitions. You ought to have a fine picture of the King of all Harness Horse Creation and the Fastest Harness Horse the world has ever seen. I will mail you one of these Large, Beautiful, Colored Pictures of Dan Patch 1:55 free With Postage Prepaid and full particulars concerning my plan of Giving Away a \$5,000.00 Dan Patch stallion if you will simply write me. **337 You Must Give Me This Information.**

1st. State paper in which you saw this offer. 2nd. Give number and kind of live stock you own.

Address M. W. SAVAGE, Owner, Minneapolis, Minn.
 Also sole owner of—International Stock Food Co.
 Also sole owner of—International Stock Food Farm
 Also President of—Dan Patch Electric Line

A \$5000.
DAN PATCH STALLION
FREE

An Absolutely Free Hair Counting Contest Without Money Or Purchase Consideration And Open To Any Farmer, Stockman or Poultry Breeder. Can you count the number of hairs drawn in a picture of "Forest Patch," sired by Dan Patch, dam by Monaco by Belmont. Write for one of the Above Dan Patch Pictures. I will also mail you a photo engraving of "Forest Patch," the Fine Registered Stallion to be given away and ALSO Drawing showing hairs to be counted and also stating easy conditions. Every stock owner will want to count the hairs on this Splendid \$5000.00 Dan Patch Stallion because it means a small fortune free for some one. I paid \$50,000 for Dan Patch and have been offered \$100,000. I would have lost money if I had sold Dan for One Million Dollars.

337 You may secure this \$5000. Dan Patch Stallion Absolutely Free. "Forest Patch" might make you a fortune of \$25,000 to \$50,000 as a great stock horse for any community because he will make a 1200 lb. stallion with great style and beautiful conformation.

M. W. SAVAGE, Minneapolis, Minn.

The impression exists that the railroads are owned by a few rich men, and it is contended that because these men are rich they can stand a restriction to a small return on their investments. But the fact is that the railroads are not owned by a few rich men. And even if they were, it is as contrary to the spirit of American institutions and the American spirit of justice for the law to discriminate against a man because he is rich as it is for the law to discriminate against a man because he is poor.

The railroads of the United States had on June 30, 1907, 328,000 miles of track and about 350,000 stockholders, or more than one stockholder for every mile of railroad operated, and these stockholders are scattered throughout the entire country.

The opinion that those who invest their means in a railroad should not be permitted to earn more than a fair rate of interest upon the actual cash value of its property and that 4 per cent. is a fair rate of interest, and hence the maximum permissible interest on such investments, is inconsistent with the higher rates of interest from other kinds of investments.

Thus, as shown by the statistics of the United States Department of Agriculture and other Government agencies, in the year 1900 the farmers of this country received a return of 9 per cent. on the value of their farms in that year; the manufacturers enjoyed in the same year a net return of 19.4 per cent., while the average net return upon railroad investments was scarcely 4 per cent. The same source of information showed that in the year 1905 (another prosperous year) the average net return of the farmers was 9.8 per cent. on the value of their farms, and that of the manufacturers was 15 per cent., while the average return upon the railroad capital was but 4.4 per cent. Investments in the railroads west of the Mississippi

have been usually even less satisfactory. The dividends on one of the important Western transcontinental lines from 1882 to 1906 averaged 2.9 per cent.; that of another from 1883 to 1906 averaged 2.3 per cent.; that of another from 1885 to 1906 averaged 1 per cent.; that of still another from 1884 to 1906 averaged 1.5 per cent.

As a single additional basis of comparison I may add that during the last forty years the dividends of national banks in the United States have averaged 8 3/4 per cent. In no year has this average gone below 6 per cent. During the last few years these national bank dividends have averaged 10 per cent.

After the investors in railroads have been disappointed for so many years by not receiving as large returns as they had hoped for—returns that they felt they were entitled to when they made their investments—it is now proposed to limit by law the maximum dividends possible to railway investments at what might be considered a minimum return in other industries (about 4 per cent.), on the ground that the railroads, being quasi-public corporations, the public has the legal right to reduce these rates as low as it pleases, if it does not make them confiscatory. But, mind you, nothing in this proposal suggests that some outside party should bear the losses and guarantee 4 per cent. minimum return on railway investments.

The question which the public should consider in this connection is not its right to fix these rates so low that they will barely avoid confiscation, but it is the broader question of equity and the public welfare.

If investors find that they can get continuously higher rates of interest on investments in connection with other industries they will not invest in railway securities, and hence funds needed for providing better transportation

facilities will not be forthcoming and the development of the country itself will be checked.

Thousands of miles of railroads are still needed in this country, and while everything within reason and fairness must be done for the stockholders and investors, we must not go to such extremes that will turn investments elsewhere and arrest and suspend railroad building.

Let us be very sure of our ground before we state our opinion too emphatically, and follow it up with our influence and vote.

Undoubtedly things had for some years been carried on with a high hand as a result of lack of restraint, but to Mr. Roosevelt belongs the credit of gradually pulling things together again, and Mr. Taft has promised to pursue the same general policy.

SMILE IT DOWN.

Everyone who loves you
 Loves to see you smile,
 Loves to see you cheerful
 And happy all the while.
 Smiling comes so easy!
 Do not wear a frown,
 If you feel one rising,
 Always smile it down.

Feeding Hogs vs. Cattle.

According to figures of R. J. Kinger of the Kansas Agricultural College, it costs \$9.99 to raise a 250-pound hog, while a steer weighing 1,250 pounds costs \$56.80. Five 250-pound hogs would, therefore, cost \$49.95, a difference in profit of \$6.85 in favor of the hogs.

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THE EASTERN FARMER BLOODED DAIRYMAN AND POULTRY RAISER



FEBRUARY.

Come when the rains
 Have glazed the snow and clothed the trees with
 ice,
 While the slant sun of February pours
 Into the bowers a flood of light.
 Approach!
 The incrustated surface shall upbear thy steps
 And the broad arching portals of the grove
 Welcome thy entering.

—Bryant

Volume XIV

Number XII

PUBLISHED MONTHLY AT

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February

1909

Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser February, 1909

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Printed on the first day of each month by L. H. Hitchler.

Entered at the Post-office at Oxford, Pa., as Second-Class Mail Matter, May 27, 1899.

SUBSCRIPTIONS ARE COMING IN.

More subscriptions have been received during the month of January than in any month this season, and quite a number of our friends take the trouble to slip round and pick up the subscriptions of a friend or two to send along at the same time.

We can assure you this is appreciated. We are not trying to set the world on fire, but we are trying to give the country folk of the Eastern States a paper exclusively their own, something they have not at the present time, despite the claims of our competitors. And it is a pleasure to read the letters complimenting our efforts.

Now, please don't think we have all the subscriptions we need. A publisher never has. We will not be satisfied until we absolutely control the Eastern Field. It's a big field, and a growing one, as farming has of late years once more become popular, the fashion as it were. And, with the usual sheep-like trait, city people are getting back to the land. Many of them as young men and women left good farms and comfortable homes to seek their fortunes amid the more attractive surroundings of the city, but are returning to start over again, glad to give up the artificial and forced life of the metropolis for the quiet, the rest and the pure air and environment of the country.

Returning to the Old Home.

Some, quite a number too, have met success, and are yielding to the tugs of heart strings back to the old farm, where, with the expenditure of time and money, they are giving the community the benefit and pleasure of their fortunes.

We cannot but be amused at some of their ideas, and must smile now and again at their efforts in agriculture, but let us not fail to appreciate the fact that their return has brought a new interest into our lives. At their homes we enjoy many of the advantages that come with city life, we meet their week-end visitors, acquaintances are formed, friendships cemented. Visits to the city and back to

our farms follow. A whole new life is opened up to both of us, and we are both the better of it. The country and city are brought to a better understanding of each other, and find that, after all, a man is much the same at heart whether he treads Wall Street or the furrow.

Think of what it all means to our young folks!

Then, there is the fact to remember, that the return to the country of city wealth has added tremendously to the actual value of our farms and everything we breed and grow.

There are disagreeable fellows among them who very plainly tell us we are a lot of "rubes," and they intend to show us how to farm, and incidentally to show us how absolutely ignorant we are in everything we ought to know.

And of course we all know the city folks who are always being "stuck" by us "pig" farmers.

Don't let any of them worry us. They get over it best as children do the measles.

Above all, don't let us repel advances of friendship, because the majority of these people have come to make their homes among us, and really mean to be friendly.

Be Open Hearted.

Don't be childish; don't be foolish and "sit back" because our rugs are carpets, and our furniture a little mellowed by age. These are not what they care about, are not what they come to you for. They want you and your family as friends; they want to be welcome in your community, they want to know local affairs and to assume their share in the responsibilities of the neighborhood.

In the city life of to-day regularity in church going is not too prominent. Invite your new neighbors to attend service with you. Show them it is expected of them.

Don't try to monopolize them, give everyone a chance to do his part towards assimilating the new arrivals.

We wandered away from our subject, so perhaps, for the sake of appearances, tell your city friends that it is customary to subscribe for our paper.

OUR ADVERTISERS—We believe that every advertisement in this paper is backed by a responsible person. But to make doubly sure we will make good any loss to paid subscribers sustained by trusting any deliberate swindler advertising in our columns, and any such swindler will be publicly exposed. We protect subscribers against rogues, but we do not guarantee to adjust trifling differences between subscribers and honest, responsible advertisers. Neither will we be responsible for the debts of honest bankrupts sanctioned by the courts. Notice of the complaint must be sent us within one month of the time of the transaction and you must have mentioned **Blooded Stock** when writing the advertiser.

EDITORIAL DEPARTMENT—The editors are always glad to examine manuscripts suitable for publication in this magazine. Photographers are invited to submit photographs of subjects pertaining to any phase of farm life. Stamps should accompany both manuscripts and photographs to insure their return, if they are not accepted.

ARTICLES AND EXPERIENCES WANTED.

Write to us. There are in the lives of every farmer, of every wife of a farmer, and of every hired man, and hired girl on the farm, of every one who lives in the country, whether old or young, incidents, experiences, trials, perplexities, and pleasures that would be of interest and instruction and amusement to the rest of us. Let us know about them. Sign your name or not, as you see fit, but let's unite to make this the best farm, home paper ever turned out.

When you can, without inconvenience, ask a friend or neighbor to subscribe. For sending us a club of three subscribers at 25 cents each, or one at one dollar for five years, we will renew your subscription a year for your courtesy and trouble.

FARM BRIDE AND GROOMS GET A YEAR'S SUBSCRIPTION FREE.

We have a friend who was born on a farm and lived and worked there until almost twenty, but whose business has kept him in the city for the last twenty-five years, who has asked us to say to you he believes so firmly that the future of every young farmer and his bride will be so much brighter and happier if they start out with a good farm paper to grow up with, that if they will allow him to do so he would consider it a privilege and favor to pay for a year's subscription to **Blooded Stock**, The Eastern Farmer, Dairyman and Poultry Raiser.

All you need do is to send us within two or three weeks of the wedding your name and address, and the date of your marriage, and the paper will be mailed to you for twelve months without any expense to you. Remember the paper will not be sent to you beyond the time for which the subscription is paid. Of course you will be notified of expiration and we will be glad of renewal.

BLOODED STOCK for February.

WHAT OUR PAPER STANDS FOR

For the Farmer, First, Last and All The Time.

But unselfishly and with malice toward none.

It is exclusively for the East, and by the East we mean the states of Ohio, Pennsylvania, West Virginia, Virginia, Maryland, Delaware, New Jersey, New York, Connecticut, Rhode Island, Vermont, New Hampshire, Massachusetts and Maine, states where farming conditions are more nearly uniform.

A territory within reach of the advertiser whose market is the thrifty country people of the East, and who want to cover it without getting western circulation that is of little benefit to them.

HAVE DONE WITH SENTIMENT

We Are Farming to Make Money.

Farming has its sentimental side, all occupations have. But they all have their practical side too, and sentiment must not be allowed to interfere in modernizing and bringing dairying up to the sanitary conditions demanded by today. Nor must we be so attached to old methods as to be blind to the fact that improvement is possible. What we want to get round to is feeding. Some of us are so used to feeding wheat bran for milk that we will not even listen to an argument against it, nor be open to conviction that if we do not make our feed bill more economical it's only a question of how long our bank account will stand the deficit.

We simply must grow alfalfa and there isn't a particle of use delaying longer. Alfalfa is the salvation of the farmer of today. It's cow feed, hog feed, poultry feed and horse feed, not simply hay but nourishing feed, meat making, milk producing, egg making. There is no use talking to the farmer who has a field; he knows how much more margin there is in his milk and pork; he knows he cannot do well without it and he won't do without it.

Do consider your own interests and plan so that not another year will pass without a patch of alfalfa. You can grow nothing that will give you such results and such satisfaction.

Bran is almost out of the question. If there is any way for the miller to clean the hull closer he'll find it. Population is growing and we face almost continually a wheat deficit.

Besides, meal, silage and alfalfa are a far better feed for milk and butter.

THE MOST CONTEMPTIBLE CROOK.

Is the man for whom you do a favor and who then turns around and "crooks" you. For instance, you lend a man a hundred dollars because he is in hard luck and needs this financing to put him again in the way of taking care of his family. You can't afford to let him have the cash, but he asks you for your note; he can use it just as well as currency. The note comes due. He has prospered but would do better if he paid only part of the note now and positively pay the remaining seventy-five when it's due.

He works hard and intelligently. His business grows and he can readily

pay the note when it's due. Further than that, he meets you on the street and volunteers the information that he will attend to the note without fail.

But he does not and you are called upon to make good the amount to the bank, and cannot even get your one-time friend to give you a new note. He evidently says to himself, "Oh, he's good for it, let him take up the note himself, and I'll pay him when I get ready."

Such a man will surely want help again some day, as such methods are unbusinesslike and contemptible.

If a man owed you money and failed to pay because he could not, that's another question, and by working along together the amount will be taken care of.

Keep your good name untarnished. It's one of your greatest assets. Don't break appointments. Keep your word. Broken promises mean so much unnecessary trouble and worry for the other party.

STORMY DAY NOTES.

From East View Farm.

The farmer who does not provide a number of good agricultural papers for his home is making one of the greatest of mistakes. I am pleased to note the new change in **Blooded Stock** and I hope that farmers throughout the Eastern States will appreciate the same and give the paper good support.

A great deal of the practical education of the farmer may be obtained by reading the best of farm papers. Not only will the farmer himself gain inspiration by reading one or more good farm papers, but they will have the same effect on other members of the family too. I would no sooner think of trying to farm without one good farm paper than I would of trying to farm without a plow.

In an agricultural paper I like to read original articles from practical farmers, who themselves have close connection with the farm and everything about it, and such articles are just what make a farm paper of interest and value to other farmers, and such communications should occupy a goodly space in the paper, and I hope that the readers of **Blooded Stock**, The Eastern Farmer, Dairyman and Poultry Raiser, will write of their experience very freely.

The farmer should have a broad education and agricultural papers, books, and the bulletins that may easily be procured, will assist in this very materially.

During these winter days the farmer may well take a little time for reading up on some agricultural matters; but on the approach of spring and the busy season, I would say, do not give up reading altogether. Read a little every day. I have made it a practice for many years to take one hour's nooning, unless there was something very special to attend to, and that gives a few minutes for reading. And I consider it time profitably spent.

F. H. Dow, Corning, N. Y.

We are very much obliged to Mr. Dow and we hope his lead will be followed by others.

There are so many little kinks about doing this, that, and the other thing about the farm, that would be so interesting to us all, and really so new

Page Three.

and helpful to most of us. Speak out, you will be very welcome.

THE FARMER IS MASTER OF THE SITUATION.

During the panic of a year ago there were very few farmers and breeders of improved live stock that went around with long faces talking about a panic, and that business would stop. The farmers and live stock breeders needed no assurance of big crops, good bank balances and that the public must buy grain and meat.

The man on the farm decided that the only time to surrender was after putting up a good fight. The conditions were favorable to the Agricultural classes, and all but a few weaklings demonstrated good generalship by stepping over the mole hill that the men with no nerve had so greatly magnified.

The farmer with nerve had in his copy book at school when a boy the text, "Difficulties show the stuff that men are made of."

We know that man's success is only limited by the limitations that he puts upon himself.

With this idea in mind we doubled our efforts to sell our surplus stock, exhibiting at the fairs and otherwise, and made many sales, but at lower prices than the previous season.

I do not tell these things to demonstrate that we are the only original wise ones, but more for the purpose of proving that the only way to get up stream is to pull harder when you come to the strong current.

The man who puts forth his best efforts in either physical or business matters will accomplish wonders and win success in a conflict in which the faint hearted is defeated.

We all know that all kinds of business is rapidly improving, and that the man on the farm is master of the situation.

continued on page seven



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The oldest, largest, most experienced and most responsible manufacturers of agricultural sprays in the world.

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THE COW AND THE DAIRY

HOW TO OBTAIN LARGE MILK YIELDS.

There is no one best feed for cows. Big results have been obtained from many different rations. When the cow freshens, she must be treated as an invalid. She must be given light food for several days as her stomach is weakened during maternity. Her stomach gradually regains strength, sometimes in a week, other times in two or even three weeks. Feed her carefully, gradually increasing the feed. Watch the excrement closely. Experience will soon tell you as to the state of the stomach and bowels. The avidity with which the cow eats tells much. She should be keen for her feed at all times. If she is slow in "taking hold" she is getting too much, that is if she leaves anything but hay or straw. The cow can do her best work only when all the organs work in harmony. The importance of this will be readily understood when we consider that there is in the intestines of the wellfed animal some 150 to 200 lbs. of fodder in various stages of digestion.

It is not food alone we must supply the cow. A heavy milking cow takes 150 to 200 lbs. of water daily, even when fed on a succulent ration. Too much water taken at a time acts as a purge and causes serious trouble. It seems natural for a cow to want to drink water after eating. Water should be before her at all times. Food and water are important, but still there are other things to be considered.

We know that we can take two cows, feed them just the same, and one will produce more than the other.

Where does it come from. Sometimes from her own body. But then there are cases in which this factor does not account for the difference in yield. It is generally said one cow has the milk-giving function to a greater degree than the other. What is "function?" We might define it as a nice sounding word that we use when we get the increased amount of when "stuck," in a similar case the untutored Indian gives a grunt and we are just about as wise. If there is not some source from which the milk then she performs a miracle.

The Part of Pure Air.

There is still another element that is too often not considered, and that is air. Air is as vital to the existence of animal life as it is to plants. A man can go for a long while without food. Some have fasted forty days and nights. But, deprived of air 40 minutes we would soon collapse. Just in proportion as we deprive the animal of pure air, we reduce the efficiency of the whole system. Pure air taken into the lungs ozonizes the blood, promotes circulation, aids digestion, and produces the power that enables the animal to accomplish work.

The cow to be a good one must have great lung capacity. To produce well she must have sufficient pure air to fill her lungs, else her superior lungs are of no benefit. The oxygen

that she breathes goes to the nerve centres, stimulating them to greater effort. Just exactly how, it is a little hard to explain. However, I will give you an example that I had in my work. Two years ago I had two cows of the same age, same breed, calved on the same date. They were in about as equal a condition as it would be possible to have them. I tested them for a month at home. One gave right along more milk, also more butter fat, than the other. She could not be taking more from her body; if anything the one giving the least was losing the most in weight. I took them to the station for a dairy test. This dairy had a very bad reputation with us cow men.

Ventilation.

The air in there is never good. Sometimes it is very bad. The committee in charge have done all they can to improve conditions, but the building is too high for one thing, and to get enough pure air on the floor where the cows are, it would be much too cold. Then the cows stand with their heads against a solid wall, and the air they breathe out cannot get away properly. Part of it must be breathed over and over again. It is bad enough for cows when they stand up. It is worse when they lie down. Judging by the manner this building, and a lot of stalls in the country are put in, we should think that the cows breathed through their tails, as the air has a better chance to circulate there. The less boards and other obstructions there are around a cow stall the better.

The way it affected these two cows was that one made no more while there than did the other. She fed all right, and was all right, but her superior lung power was of no use to her, as the air was not pure enough. There never has been any big work done in this pen in which the dairy test has been conducted. Yet cows have done better work before coming here, and others have done big work after leaving here. We had better follow this up to show how the air and heat affects heavy milkers. Anyone that has done much official testing knows that big work is not done by the cows if they freshen in the summer. We can get the feed all right and we can get the water all right, but we cannot get the air all right. We can get it pure, but we are liable to have hot spells. And that will knock a good cow out quicker than anything. We can see a good reason for this: A heavy milker takes so much air into her lungs that when it is too hot, it raises the temperature of the body too much, and the nerve centres are not stimulated.

Cows Should Freshen in Winter.

I was testing two cows in June. The weather had been nice and the air exhilarating and the two cows had been doing well. Along came one of those very hot spells. The one cow dropped from 2.4 lb. fat daily to 1.85. The other cow had not been doing such good work and did not drop so much. Dairy men are getting wise to

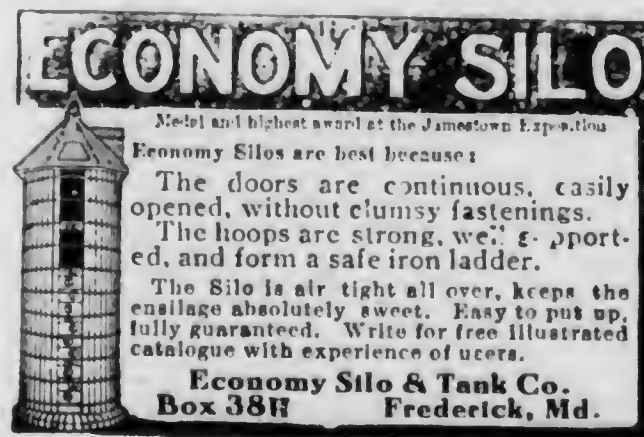
the fact that in order to have their cows (that is those heavy producers), do big work, they must freshen in the winter, when the temperature can be controlled. Too much cold is also bad, and no wonder, considering the amount of water the cow drinks and the air she uses.

A cow not milking in the winter will not require so much water. But, if cows are to give a large amount of milk the following summer, they need to be well cared for, and put in good condition for the heavy demand that will be made upon their strength. Pure water is quite as necessary as good feed. A cow kept in an ill-ventilated stable at nights, turned out in the raw cold air all day, will not attain the desired vigor. Two wrongs never made a right. The cow should have good air all the time. We should avoid all drafts in the stable. Avoid extremes of temperature. Keep the air as pure as possible, even if a little lower temperature must be obtained, and be regular in feeding and milking.

This article was written by Mr. George Rice and we hope it will be very carefully read by our friends. It's worth it, and there are several points in it that should bring considerable favorable comment. It opens up a wide field of suggestion and we hope those of you who are well posted on the "function" of the dairy cow will give us the benefit of your experience.

WHAT AN AMATEUR FARMER DID WITH A DUAL PURPOSE COW.

Not long ago I noticed an inquiry about feeding cows without silage, and now the gentleman says the method you published gave good results. May I mention a little personal experience in that line. We had been buying milk. It was so unsatisfactory we decided to keep a cow. After looking at several, I selected a grade Shorthorn, which the owner said had plenty of points. She certainly had, but most of them were in the wrong place. I parted with \$40 and the cow was delivered at my barn. She came in shortly after, and began actively milking about the middle of December. During the winter she was fed first-class timothy hay, at a cost of \$16 per ton, getting just what she cleaned up nicely at each feed. Her regular grain feed was a mixed chop of corn and oats, costing \$1.65 per cwt. She got all she could eat of this feed dry, except a couple of times



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a week, when she got what she would eat of scalded bran, seasoned with plenty of salt. On such days she got no chop. In summer she was turned on the grass at night, and kept in the stable during the day. The bran was discontinued in the summer. She did not need it, but she still got all the chop she would eat and a little hay. Sometimes in the winter, she would get a cup of linseed oil, poured on the chop at each of the three feeds; on other occasions I mixed ground flaxseed meal with the chop. The stable was rather cold. In winter she was blanketed. In summer the windows were screened, so that no flies could bother her. She was always groomed and well bedded.

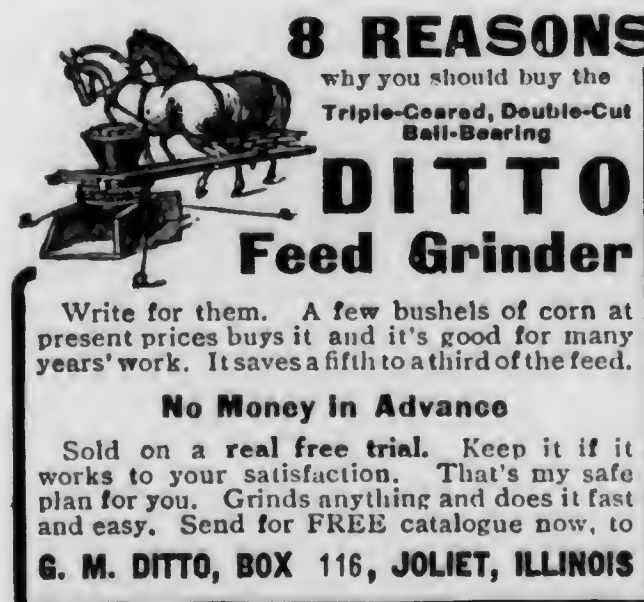
We had a family of five, and used what milk and cream we wanted. A neighbor did the feeding and milking, and took what milk he needed for a small family. The balance I sold at 6c per quart. What I sold paid for all the feed and recouped me the \$40 she cost. In the fall, we got the first premium in the milking class at the agricultural show held in our town. At the end of the milking season I sold her to a farmer for \$60. That sum was clear profit, besides the milk we used ourselves, of which no account was kept. She was a typical dual-purpose cow. It need not be inferred that I would have bestowed such attention upon a poor milker.

Silage is all very well. Pedigree is all right, too, but it takes a full corn crib and a liberal hand to make good cows and get plenty of milk.

Perhaps some other "amateurs" will tell us what they have done. This owner certainly made a record, but of course there is no way of knowing how much better he would have done with alfalfa and other methods of feeding. Let us have the benefit of your experience.

STRAINING MILK DOES NOT PURIFY IT.

Straining milk does not purify it. Milking should be done with such attention given to cleanliness that it would be unnecessary to use the strainer. This utensil is of value chiefly because it removes the visible indications of impurity in milk, not because it really has any purifying effects. Small particles of manure, hairs, pieces of dead cuticle from the cow's udder and body, and dirt from the milker's hands find their way into the milk pail during the first manipulation of the udder, these impurities are churned around in the pail by the force of the streams as the



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1st Prize, Gold Medal, Tully Farms, New York.....Score 94¾
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milk is drawn, and by the time the pail is full this filth is all but dissolved, and no strainer yet produced can remove anything but the coarser and more insoluble substances which settle to the bottom of the bucket.

Millions of these impurities are untouched by the strainer and go on their way rejoicing to carry ill health and disease, maybe, to all who drink the milk or use the butter made from it. We use the milk strainer because we do not like the looks of small particles of dirt and refuse in the bottoms of the milk can or perhaps in the drinking cup. It does no harm to remove these, but gives us a sense of relief in thinking that the milk is clean because it looks clean. We seem to have discharged a moral obligation in using the strainer, forgetting that the real harm comes from the dissolved materials, the filth that goes into solution and carries its nauseating effect concealed in the pure white fluid.

HE IS A FIEND WHO KICKS A COW.

This may be putting it a little strong, but few things so anger me as to see a man or boy abuse a cow, the most peacefully gentle animal we

have. So gentle that she takes abuse without even resentment. How seldom we even hear of a cow using her horns against a man, and when she kicks it's generally because she does not know her tormentor is a two-legged monster.

We are often told "I haven't eyes in the back of my head." Neither has the cow, and if she kicks when you accidentally, or purposely too often, touch her leg when cleaning out the stall, remember she probably would not have done so had she known, or seen, who it was, so don't whack her with the shovel.

If a cow kicks when being milked it's because of former abuse or the operation is so painful that there is nothing else left for her to do. Stop and find out what the trouble is, and see if something cannot be done for her relief and cure.

Gentleness and kindness are not only appreciated by "bossy," but she amply repays them in a greater flow of milk, which is impossible under nervous strain incident to rough handling and abuse.

Now, when you see the full milk pail, you are glad that the silo was built, and the barn filled with delicious alfalfa.

OUR HORSES

BREAKING A COLT.

The question of breaking a colt is one of great importance to the farmer. My method of handling a draft colt, from the time it is foaled till it is fit to go to the field thoroughly broken to all harness, has proven satisfactory. In the first place, I start as soon as the colt is born, and keep steadily at it until I have him fully under my control. After the colt has got right on his feet, and is playing around the large, roomy box stall which it and its mother have, I begin operations. First, I fondle around the colt's head and neck, so as to get him to know I am not going to do him any harm, and it does not take many days for him to realize this. Next, I get a good, strong halter and a fair length of run strap. If he acts any ways ugly, do not abuse him, but watch a chance and get your arms around his neck. Any able-bodied man can hold a colt a week or two old till he can slip a halter on his head. If he still acts ugly, I advise not to attempt too much in one day, but go back at the task the next day, and you will have no trouble in catching your colt. I always leave the halter on him, with the run strap detached.

The second day, when you have a firm hold on your colt, hold him until he finds out you are master, but do not make any demonstration that you have conquered him. Just be quiet and gentle with him, and give him a lump of sugar or salt each time you work him. Now, when you have taught him to stand, you have accomplished one valuable point in breaking a colt.

Next, I put on the run strap, and try to get him to follow me around the stall. As a general rule, he goes backward, instead of forward, but just let him go around for a few times, and he will likely tire of it. If he doesn't show signs of tiring, try to turn him around several times. I have not had one case where I could not lead him in two hours' time.

Now, when you have got him to lead, take him out every day and give him a lesson. Continue this until you have him thoroughly broken to run by your side or in front of you on the line, or any way you want him, but in doing so always have him to understand when you say "whoa," and "get up," or "come on," or some other familiar phrase that the colt has got used to, but be sure to use the same words each time, for it must be remembered that the colt is a young pupil, when we consider how much we have to accomplish with a colt of, say, two months old.

After leading and running, and such like, I tie him beside his mother to a good stout manger. Of course, he will pull and fly back, but, after struggling for a while he will nearly always give up. Then he may be untied, and left to roam around the stall till the next day, when he should be tied up again. I repeat this every day until I am confident that he will stand like an old horse, and I have

never had any trouble with halter-breaking colts since I have adopted this method.

Starting with the second year, he should be handled the same as when a colt, except that the bridle and bit should be used, instead of the halter. I continue this treatment till he is two years old, when he should be made acquainted with the harness. Before harnessing him, I put on a back-band and crupper strap, and check him up and let him go out into the yard to get his mouth hardened somewhat before I start to drive him. When he has had this treatment for a couple of months, I harness him alongside of a good, steady-walking horse, and drive them around without hitching them to any vehicle for a day or two. If he goes well (and he nearly always does), you may hitch the team to a sleigh or wagon—I prefer a sleigh, as it is generally easier turned around, and you are not in much danger of being hurt if you are thrown out, in case of any mishap.

Now, you have your colt broken to drive nicely, but do not imagine he is fit to go to work, as he is just past two years old, and should not do more than easy work till he is three years old. Even then he should be handled with care till his shoulders are hardened and his mouth in good shape.

If this method is followed, your colt will be well enough broken for any person with ordinary sense to handle him in any kind of harness, and hitched to any implement or vehicle.

Above all, be gentle. Too many men, particularly young men, have an idea that in order to properly break a colt they must abuse him, show they are master, even of the treatment is so rough that it effectually breaks the animal's spirit.—J. C. H.

TAKING CARE OF HORSES.

On such a general question only a few remarks can be made. In the first place, horses should be fed so as to keep them in good health. In the second place, they should be fed in such a way as to insure their being in condition to do the most work possible.

To insure good health, a moderate quantity of good feed is necessary. Say, for a 1200 lbs. horse, at moderate work, 8 lbs. oats, 3 lbs. bran, 10 lbs. hay, 3 lbs. straw, 5 lbs. of roots, preferably carrots, a day. Fed most largely of grain and hay in the morning, and at noon give a similar portion of grain, a fair portion of hay, and the straw at night. Water before feeding the grain. See that hay is free from dust. A mixture of clover and timothy hay is the most satisfactory. Where horses are not working, straw may replace at least half the hay. Where horses are working very hard, grain should be increased slightly and the straw taken off.

Groom thoroughly every day, bed comfortably and keep stable clean and well ventilated.

Where heavier horses are used rations would need to be increased. A fair rule for a hard working horse is a little better than 1 lb. oats a day and a little less than a lb. of hay a day for each 100 lbs. of weight of the horse. That is, a 1600 lbs. horse should have around 17 lbs. oats or meal, and around 16 lbs. of hay a day when at hard work.

The feeding of straw to horses is not as common as it once was, but good oat straw is relished and contains considerable nourishment.

What do you think of this ration? Tell us what you suggest as an improvement. Certainly down this way oats would give way largely to corn, and so they would in New Jersey.

DANGEROUS LONG HALTER STRAPS.

We recently inquired of a prominent breeder what kind of a colt one of his prize-winning mares had produced this season. His reply was that he had had bad luck with the mare. She had dropped a fine stud colt in the spring, but when about two weeks old the colt became entangled in the halter rope and choked to death.

Like many other cases of such so-called bad luck the proper name for this condition of affairs might better be criminal carelessness. About many horse barns there is perhaps no one small factor that causes more loss than carelessness in tying the horses. A horse should be tied just long enough so that he can reach the bottom of the manger easily and lie down without discomfort. A long loose tie is not only undesirable but in many cases causes actual loss.

In the case of the valuable brood mare mentioned it stands without question that she should have been placed in a box stall where no halter was necessary. But if she had to be tied the utmost care should have been exercised to keep the rope short, and the one case of neglect no doubt caused the owner a loss of several hundred dollars.

We can all recall numerous instances where two horses tied long have backed out of their stalls and indulged in a kicking duel that often resulted disastrously to one or both.

In considering the different kinds of ties it is quite likely that a strap in the halter is preferable to a rope. Where a colt is running with its mother it seems to be easier for it to become entangled in a rope than in a strap, although if either of these are tied short enough there is little danger from this source.

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Horses Cannot Overcome Fright.

Some horses cannot, seemingly, overcome the fright of certain things, trains most frequently.

I remember when a boy a young chum owned and rode a beautiful little mare to and from school, a distance of about six miles and a half all told. She was afraid of trains, but of nothing else. He used to try to get her used to the trains, but it was no use. Every time she came to the crossing if a train was in sight she would tremble, and finally fell down in a fit of absolute fear.

Another case was of a farmer neighbor in Minnesota, who had a horse what never seemed to get used to trains. Finally he gave up trying to drive him, turned him into the pasture and let him watch the Wisconsin Central trains as they passed.

In order to keep him facing the trains, his next step was to tie him to the fence alongside the tracks. The poor animal simply could not stand it and fell dead of fright.

Don't be harsh with the poor, dumb creatures. Could they only talk they would tell you the reason, and you'd have pity after all.

USE A LITTLE COMMONSENSE

Carelessness about the farm, probably more than anything else, cuts into the profits. And what we call, and like to think of as bad luck, is in reality nothing more or less than rank carelessness; or, perhaps it may please us better to say, a failure to be thorough, and a willingness to take a long chance.

If we sit down and figure over the year's work we will be very much surprised to find that, though fortune has favored us very often, the balance is decidedly against her, and that the reason we are not able to show as good results as our neighbors lies in this very fact.

Don't take a chance on leaving an overheated horse unblanketed in front of the store because you can be only half a minute. It's not humane, it's not safe, and you are more likely to stop a quarter of an hour.

If you're not sure you tied the mare, better light the lantern again, and trudge to the barn, rather than take a chance of her being kicked.

Too many farm men and boys have a habit of throwing the grain into the feed box of the horse you're out driving. Kindness to you to have everything done up, but may be trouble for the horse. Don't allow it; don't do it.

We know of a Jersey farmer who sold his farm one April, and the new owner took eight loads of manure out of his stable, and over thirty loads of accumulated rubbish and filth from the cellar. Mr. Careless sold his farm because the climate didn't seem to agree with his wife and children. He evidently needed a little something himself judging from a couple of well-handled demijohns found in his den.

Just a little way from this another farm changed hands a year later. Never was there a farm more inviting, more beautiful, more perfectly situated. Nature had lavished herself upon it, and yet the owner had gone

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or more by using only such seed as has been carefully graded. You will also get far better corn. Government tests have proved that the main cause of small crops is an uneven stand. No corn-planter, whatever its merits, can drop seed evenly, if the seed be carelessly graded or of all sizes that come from the ear. But, with seed carefully graded to a uniform size, any good corn-planter can be depended upon to drop every grain just where you want it and thus make every inch of your ground do the service that it should. Government tests also have proved that the main cause of poor quality in corn is the planting of seed not well selected.

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easily and quickly separates, in a new and scientific way, the full, perfect, evenly-shaped grains from the large, irregular, unshapely grains. Money back if not delighted. Grades more corn and grades it better than any other device on the market, regardless of price. Capacity, 10 to 15 bushels per hour. A boy can work it. No machinery to get out of order. Made entirely of steel—nothing to wear out or rot—will last a lifetime. Simply slips a dollar bill in a letter and mail to us. You will never need a dollar that will bring you greater returns. Grader will reach you promptly. If you don't find it is worth its weight in gold, return it and get your money. Thousands in use. Order today, and we will send with Grader, booklet—"HOW TO GRADE CORN—HOW TO SECURE THEM."

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farther and farther behind each year for fifteen years. Why? Well, the new owner drew exactly eighty-five loads of manure out of the yard. What do you think of that in these days when the land needs such fertilizer?

Swollen Legs.

We keep heavy horses, and during the winter time they are sometimes working every day, and at other times they stand several days without exercise, in which cases they become constipated and their legs swell. How would feeding a little salts daily mixed in chaff act as a treatment to keep them in good condition?—J. W. B.

Ans.—A little Epsom salts, say a heaped tablespoonful daily, acts as an alternative, but has little or no action on the bowels. However, it might have a tendency to prevent the troubles you mention, and, at all events, can do no harm. The proper treatment is the administration of an aloetic purgative as 10 drams aloes and 2 drams ginger, feeding on laxative food, and giving as regular exercise as possible.—V.

continued from page three

I am writing this for the purpose of filling your hearts and souls so full of the possibilities that are rightfully yours, that your enthusiasm and absolute confidence in the future will make you outdo your best record of

the past. Get busy, increase your breeding herd and prepare for the best trade next season that the breeders of all kinds of live stock have ever enjoyed. But don't let us get so filled up with our own importance that reverses must come to us to bring us back to our senses. The future of farming in North America is truly glowing, but don't forget that we have had crop years now and again and must be ready for them.

LET US TAN YOUR HIDE,

Whether Cow, Steer, Bull, or Horse Hide, Cat, Dog, Deer, or any kind of hide or skin, soft, light, odorless and moth-proof for robes, rug, coat or gloves, and make them up when so ordered. But first get our illustrated catalog, with prices, shipping facts and instructions. We are the largest custom fur tanners of large wild and domestic animal skins in the world. Distance makes no difference whatever. Ship three or more cow or horse hides together from anywhere, and Crosby pays the freight both ways. We sell fur coats and gloves, do taxidermy and head mounting.

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HOGS

THE ORIGIN OF THE BERKSHIRE.

By William Dietrich.

In order to be able to understand live stock history thoroughly, one must first be a student of human nature, the natural course that human effort takes, and the conditions prevailing in the country at the time that the breed was established.

It is a matter of common knowledge among all the breeders in this country at the present time that the Poland China breed, which is strictly an American breed, formerly consisted of animals with more size than at present, more coarseness and more length of body. The general tendency with the breeders of this hog was to improve the quality as well as the smoothness and general appearance of the animal, and in so doing, since it is easier to get a good short hog than a good long hog, the former was produced. In other words, quality, early maturing and fattening tendencies have been increased at the expense of size, prolificacy and thriftiness.

The Duroc Jersey breed, which is of still later origin in this country, apparently is undergoing the same metamorphosis. If the breeders of the present and coming generations understand the situation, the breed will be maintained at its present state of usefulness, otherwise, they are subject to the same course of development as was followed with the Poland China.

The Berkshire breed is a so called English breed. It, however, is not of strictly English origin. Nevertheless, it was developed and improved in England during its early history, and later on in the United States as well as in England. There is only one kind of Berkshire and the statements that are so often seen relative to the various kinds of Berkshires are all folly. The ancient civilization of the world was found in Southern Asiatic countries, and it is thought by some that this ancient civilization before the dark ages had reached a stage that is comparable to the highest civilization of the world today. These people in Southern Asia at that time grew hogs. Furthermore, human nature at that time seemed to be the same as we see it today, and these people developed a type of hog that was characteristic for its fineness in quality, early maturity, shortness of body to some extent, and smallness in size, together with the quiet gentle disposition, and extreme fattening tendencies.

There were several varieties of these hogs, as for instance, the Neapolitan, Siamese, and Chinese, which were found in later years. This type of hog is also associated more or less with conditions that prevail in a Southern country. In such a place food is abundant which has a tendency with the natural inclination of a pig in the way he eats, to bring about early maturity and fattening tendencies and this is magnified by the fact that in such a country a pig is not

obliged to take very much exercise.

The Northern countries of Europe did not appear upon the horizon of civilization until a much later date. At this time we find a hog in England with diametrically opposite characteristics. This hog is long in body and leg, coarse in flesh, slow maturing and large and rangy. This type again is quite naturally associated with Northern conditions, because in the first place, feed is scarce, which requires a great deal of exercise in gathering its sustenance on the part of the pig. Furthermore, at the time history was developed these hogs of the North had not been refined and improved, while those of the south were. Furthermore, to be able to understand the origin of the various English breeds of live stock one must be able to comprehend the conditions under which the people lived. Railroads were absent and people lived in sections of the country that were by nature more or less isolated, with little or no communication with the outside world, consequently each locality, through its long years of existence in such a state, developed a type of live stock that was peculiar to its people and to the conditions of the country.

The Berkshire breed of today is the result of a cross between the old Berkshire hog of England as it was found in Berkshire county, one of these localized communities, with the southern type of hog, namely, the Neapolitan, Siamese, and Chinese.

If the laws of the breeding as pointed out in Mendel's law are thoroughly understood it can easily be seen that the Berkshire as it exists in this country as well as in England, after the time of introduction of the Southern cross, is essentially a hybrid between two distinct types of hogs which were directly opposite in characteristics.

WORMS IN HOGS.

There are a number of different kinds of worms found in the alimentary canal of the hog, but probably the one most commonly found is a large white worm, varying in length from five to ten inches. This parasite is usually found in the small intestines. Other common parasites of the intestines include the thorn-headed worm of the small intestine, the pin worm of the rectum, and the thread worm of the large intestine. The effect of large numbers of any of these parasites is to interfere very materially with the growth of the hog. Young hogs and pigs are injured to a greater extent than adults, as they frequently become stunted to such a degree that it is difficult to get them to growing and thriving as they should.

As a rule little or no care is taken to prevent the hog from becoming infected. One infected hog in the lot will, under ordinary conditions, soon infect all of the hogs in the lot, as the principal means of spreading the infection is through the dirt of the feed lot and by means of surface

water that is frequently used for the hogs to drink and wallow in. The treatment for most of the intestinal worms is simple and generally very effective, there being a number of remedies available. The following are among the most common and effective of the remedies and the dose given is for each one hundred pounds of live weight: Fluid extract of spigelia and senna mixed in equal parts in half ounce doses twice or three times a day until purging takes place. The cedar apple may be ground up and given in thirty grain doses three times a day for two days and then followed by a physic. A mixture of powdered worm seed and areca nut in teaspoonful doses twice a day is good. Turpentine is the best general remedy to use. Give two teaspoonfuls in milk, or a small amount of slop twice a day for two days. If a number of pigs are to be treated they should be divided into lots of five or ten and then given the medicine mixed with their feed. All of the remedies should be followed with a purgative except where the remedy itself is a physic. For this purpose give an ounce of castor oil or linseed oil. A mixture of salt and ashes kept in the lots where the pigs can get what they will eat of it is a good remedy to use for preventing intestinal worms.

Do be careful about the drinking water. Hogs are really clean animals and do not enjoy drinking polluted water, or wallowing in sink-holes. Give them clean water to drink and clean water to bathe in and you will be well repaid for it.

CORN AND SKIM MILK FOR HOGS.

Some Advice From Missouri.

Hogs in the butter dairy where there is much skim milk to feed form one of the best combinations for money-making when properly and intelligently done that the farm can furnish. The Missouri station in bulletin 79 reports some very exhaustive experiments in combining skim milk with other feeds to make a well-balanced ration for fattening hogs. Briefly stated the search was for food that would produce pork the cheapest, and results favored corn and skim milk in proportions of one of corn to three of milk.

The least profit came from a mixture of corn and bran or shipstuff. The former cost 2.17 cents to produce a pound of pork while with the latter it required 3.09 cents. If you propose to try feeding skim milk to hogs for profit then send for this bulletin and study it carefully and keep it always with you.

There is, however, a sharp and ear-

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nest warning that should always go with advice about feeding hogs about or near a dairy. There is no mixture on earth like hogs and skim milk with a little mud to help along for raising the vilest smell that can offend nostrils. Dead animals and old manure are not a circumstance to it. For this reason you must locate the hog pens as far as you can from the dairy house and cow stables. Find some way to transport this skim milk on wheels. Do not attempt to run it through an underground or open drain for there will be leakage enough to form rotten spots along the drain that in time will foul the air and destroy your dairy.

If you can have the hog pens connected with the feeding room and then feed only in metal troughs and never feed more than the hogs will eat up clean you many, with great care, avoid the trouble of this combination, but milk and especially cream are very sensitive to foul odors; they must have pure air to make fine butter.

Better by far take no chances. Put the hog pens far away and use a wheeled truck with tin can that can be thoroughly scalded to transport the milk to the hogs.

SKIM MILK FOR SWINE.

The feeding of skim milk to swine is but imperfectly understood by many of those who feed it. The following may be said with reference thereto: The aim should be to feed the milk as soon as it is possible to do so after it has been obtained, as, especially in cold weather, it is a distinct advantage to feed it with the animal heat in it. No better food can be given to young swine aside from the milk of the dam while they are yet unweaned. At such a time they will turn to good advantage all the skim milk that they will consume.

Subsequently to the growing period they will turn to the best advantage not more than, say four pounds of skim milk to one pound of grain when they do not have any grazing. When furnished with grazing and grain not more than three pounds would be needed to one pound of grain. Much more may be fed, but the relative profit will not be so great. Not more than four or five pounds to one pound of grain should be fed to swine that are being fattened. Brood sows can turn to good account large quantities of skim milk, but not to such good account as the young swine which nurse them. It would seem correct

BROWN FENCE

The heaviest strongest, best galvanized fence made. A more substantial, stock-resisting, time-defying fence was never stapled to posts.

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We'll send you a sample of our all No. 9 wire fence. You can test it any way you like. File it and see how thick the galvanizing. The "BROWN" will commend itself to you. It's the best. Free Catalog.

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Farmers, stockmen, salesmen, doctors and others ride through the country safely, rapidly and in comfort in this Auto Buggy. It will go anywhere that a team of roadsters can go—up steep hills, over rough roads and through mud.

The International Auto Buggy is a vehicle of wonderful serviceability. It is alike adapted to the requirements of business and pleasure. It saves your time and avoids the necessity of keeping a road team or of taking a team away from the farm work when you want to go to town or on a business or pleasure trip.

This Auto Buggy is made so simple and strong that there is little chance for it to get out of order or cause trouble. It has a high clearance with its 40 and 44-inch wheels. The wheels run on roller bearings, and, being standard gauge, they track with the farm wagons and other vehicles.

There are no tire troubles because the tires are solid rubber. Both rear wheels are chain driven by a thoroughly reliable 14-horse-power air cooled gasoline engine. The rate of speed is from 2 to 20 miles an hour.

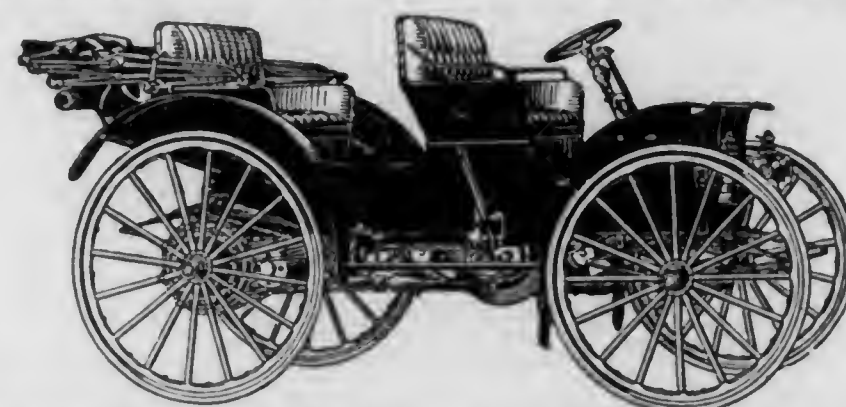
Control is one of the most important features in every horseless vehicle. The control in the International Auto Buggy has been worked out to a great nicety. One convenient lever controls the two speeds forward and the reverse. The steering wheel operates easily and effectively. Children and ladies operate the Auto Buggy easily.

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This horseless vehicle has been subjected to the severest kinds of road tests. It has proven to its owners from Maine to California, operating under all conditions, that it is the car that meets country road requirements.

These auto buggies are made to accommodate one or two seats and with single or full top.

The Auto Buggy has great possibilities for you. Investigate it fully. Call on the International local agent for catalog and particulars, or write to the home office.



INTERNATIONAL HARVESTER COMPANY OF AMERICA
(INCORPORATED)
CHICAGO, U. S. A.

to say that the younger the swine to which the skim milk is fed, the better will be the return from feeding it.—Prof. Thomas Shaw.

Notice how authorities differ. But conditions are not always the same by any means, and must be taken into consideration when applied by the feeder.

The proper thing to do is to post yourself on all sides of the question, consider how conditions surrounding you might affect results, and then plan things for yourself. Experiment a little, but sticking to certain fixed principles laid down by experienced breeders. Then write the results to us for publication and comment.

GREAT BRITAIN TAKES ANOTHER FORWARD STEP.

For years it has been a custom of some of the English judges to suspend sentence, or at an rate to reduce the charge, on condition that the criminal would emigrate to Canada, Australia, or one of the many British colonies.

Of late too many of these crooked "gentlemen" have been trying to continue their "business" in the colonies, and protests have been made to the Home Government which have resulted in an order from Secretary Gladstone which will undoubtedly

put a stop to the practice without very much delay.

The contrast between the Imperial Government's ready response to colonial wishes in nineteen hundred and eight and their indifference to it in seventeen hundred and seventy-six is decidedly marked.

GREENWOOD STOCK FARMS—

Farmers and Breeders I now have a large stock, probably the best I ever owned, thoroughbred Poland-China and Chester White Pigs, 2 to 6 mos. old, sows bred and boars ready for service, all from prize winning stock. Guernsey and Jersey Cattle, Buff and Barred Plymouth R. Chickens. Farms and Residence, Greenwood, Pa. Address C. H. DILDINE, Route No. 1, Rohrsburg, Pa.

BARGAINS IN POLAND - CHINAS, BERKSHIRES and CHESTER WHITES

I now have a large stock of probably the best I ever owned. Cannot tell you all here, but I have Boars and Sows, all breeds, 2 to 6 months old mated not akin; sows bred and boars ready for service. Guernsey Calves and Registered Scotch Collie Puppies. Write for prices and free circular. This stock must go and will be sold. M. B. Turkeys, Barred and White P. Rocks, B. Leghorns and Beagle Dogs. P. F. HAMILTON, Cochranville, Pa.

BLOODED LIVE STOCK

DON'T RAISE TOO MUCH STOCK.

Nothing goes to the heart of a lover of animals more sharply than a lot of half starved stock. Don't keep an animal more than the farm will support in plenty. A well fed and cared for team will do more work than two teams of weakened, straw-fed horses. Two properly fed cows will give you far better results than twice as many depending almost entirely upon corn stalks for their sustenance, and the eternal squealing of half-fed hogs must drive you almost insane. Even chickens, excellent scavengers though they be, cannot be expected to produce eggs during the winter, unless fed properly and regularly.

Don't starve the land either. If you cannot properly care for the whole farm don't try to do so. Better by far let a field or two lie fallow than to half fertilize and half cultivate the whole place. One acre of corn planted as corn should be and taken care of as it must be will give you more corn, more stalks and greater satisfaction than two or three acres we see so frequently.

Don't starve your family; don't starve yourself. You must give your mind as well as your body, nourishment. You must have social intercourse with your neighbors, plenty of proper reading matter, and keep up with the ever progressing movement of the world around you.

We do not advocate incessant "gadding," and the "unsight and unseen" taking up of every new proposition and method that anyone chooses to propose, but thank goodness there is no longer a place in our farming life for the man who never takes his eyes from the ground to see what others are doing, or allows any member of his family to do so.

It's all right to think of the good old days, and tell us how much better they did things when you were a boy. But the world moves onward and those methods will not answer now, and we do not propose to adopt them.

Then the farmer raised for his own living, now the market is the world and his competitors the civilized nations.

The secret is intensive effort, whether in dairying, breeding or general farming, and it's the same in life off the farm. The Jack of all trades has given way to the master of one.

But we have only made a fair beginning in this country yet. The day will come when the product will be twice what it is today.

BREEDING FOR A SINGLE QUALITY WEAKENS OTHERS.

So says Prof. V. E. Fuller, in the Practical Dairyman, and Mr. Fuller is admittedly an authority on such matters, and anything he puts his name to is, therefore, entitled to careful reading. One especial characteristic of Mr. Fuller's writing is its simplicity. The language is so direct and easily understood, that anyone of av-

erage mental calibre can follow his reasoning and directions. This is a great point that so many writers in agricultural papers overlook, and writers of all classes, for that matter. They assume that their readers know almost as much as they do. If they would adopt Mr. Fuller's style, there work would be more interesting and resultful.

Effort has been made to increase the nitrogenous content of corn, to make it more valuable for feeding purposes. While the object has been accomplished to a certain extent, the results so far go to demonstrate that there has been a decreased yield per acre in proportion to the increased nitrogenous content.

This is not at all surprising, because it is similar to what has been found by experimenting with the animal kingdom. If we seek, in breeding either plants or animals, to make a material departure from the fixed characteristics and succeed in doing so it is invariably at the cost of weakening some characteristic that has been fixed by generations of breeding.

The writer has predicted for years that the effort of the Jersey breeders to increase the quantity of milk will only be accomplished by lessening the percentage of fat. If anyone will compare the quantity of milk and the percentage of fat given by the Jerseys in the Chicago World's Fair in 1893 and the St. Louis Cow Demonstration (ten years later), this fact becomes apparent. The quantity of milk was materially increased and the percentage of fat considerably lowered.

The writer looks for the same results in the Holstein breeding, because the breeders are endeavoring to increase the percentage of fat; and while it will doubtless be accomplished, he believes it will be done only at the cost of decreasing the quantity of milk given by this great milking breed.

There is an interesting distinction between plant and animal breeding. The former may be said to be a system of elimination. The selection is made only through the mother in ordinary out-of-door plant breeding. The pollination through the father must be by chance, because it is impossible, in ordinary plant breeding to isolate the father. By this system of selection the mother plants from generation to generation, the improvements are made.

We all know, on the contrary, that in animal breeding, while we should eliminate all undesirable animals, we not only select the female, but couple her to the best mates procurable, and we should realize that the male is more than half the breed.

A SIMPLE CURE FOR ABORTION.

A reader writes that he has the very best of success in treating cows for abortion. His method is to pour crude carbolic acid over salt, and give the cows access to it at all times. He claims not only to have cured chronic

abortion among his own cows, but has treated several for his neighbors, and has bought others that were persistent aborters, which, he says, have become regular breeders. The remedy is simple, and is endorsed, with more or less qualification, by members of the veterinary fraternity. Many of our readers are aware that the administration of carbolic acid has been tried and recommended by the well-known stockman, Geo. Rice. However, while it is well to remember that carbolic acid is a specific for this trouble, it would be very unwise indeed for anyone to take any chances of introducing contagious abortion into his herd, with the expectation of curing it with carbolic.

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Only Two Cents a Word.

All classified. Each initial or number counted as one word. No advertisement taken for less than 25 cents each issue. All replies must be sent direct to advertisers. Cash covering the exact number of words at 2 cents each must be sent with every order. This Department for Live Stock Only.

POULTRY.

FOR SALE—Fine utility, Single Comb Brown Leghorn cockerels, \$1 up. Eggs after March 1st. E. G. BRATTON, Ryde, Penna.

Burred Plymouth Rocks, America's finest strains. Cups and Blue Ribbon winners at Cumberland, Frostburg and Somerset. 600 fine large farm-raised birds for sale at reasonable prices. Twenty-five extra choice Light Brahma cockerels for sale. Write me. HERMAN SHOCKEY, Sand Patch, Pa.

MISCELLANEOUS.

HORSES going blind Barry Co., Iowa City, Ia., can cure.

FOR SALE—Very handsome trotting mare, in foal to Perry K. 213, \$100. P. J. WYAND, Cumberland, Md.

CATTLE.

PURE-BRED Registered Holstein bull calf. Dam's record 15.34 lbs. MADISON COOPER, 101 Court, Watertown, N. Y.

PURE-BRED Holstein Bull Calf. Eligible for registration. Also high-grade bull calf. MADISON COOPER, 101 Court, Watertown, N. Y.

HOGS.

FOR SALE—Duroc and Poland China Registered stock bred sows. Service Boars \$13 to \$20. 40-lb. Pigs \$5. Also some choice Rhode Island Red chickens. WM. HARSHMAN, Thurmont, Md.

FOR SALE—Some fine Yorkshire Pigs—no better stock in U. S. Just imported—new blood. A. A. BRADLEY, Frewsbury, N. Y.

FARMERS

Send 50c in stamps for 6 months' subscription for the Horse News and Speed Bulletin. Finely illustrated paper. And receive three valuable formulas free—Bone Spavin Cure, Heave Cure and a good Hair Grower—all genuine. Address P. J. WYAND, Cumberland, Md.

WHAT CANADA IS DOING TO FURTHER THE BREEDING OF THOROUGHBRED HORSES.

The Canadian National Bureau of Breeding has now upward of 1,000 applications for thoroughbred stallions, the requests coming from the length and breadth of Canada. This enormous demand shows a condition that very few men suspected. It proves beyond doubt that the day of the pure blooded horse is at hand and that he is needed and longed for from coast to coast in this country. It will be well for applicants to understand that only about one in ten can be supplied with a stallion in 1909, for the firmest rule in the National Bureau is that perfect horses shall be sent out, and if the new organization places 100 of this kind during 1909 it will have done all that could be expected. Not more than one horse will be placed in any one county.

The work of the National Bureau has increased so rapidly that John F. Ryan, the general manager, has found it necessary to open a head office at 14 Windsor street, Montreal, and to establish a bureau depot in that city. It will probably be necessary during the next year to have similar establishments in Halifax, Toronto, Winnipeg, Medicine Hat, Calgary and Vancouver.

A few days ago the National Bureau stallion, McIlvain, by Bend Or—Sierra Leone, which has been placed with Collin J. Sewell at Perth, Ontario, was examined by the government inspector and was given 132 points out of a possible 137. His score, which follows, gives a line on the kind of stallions being placed by the bureau:

Possible	Corrected
Score.	Score.
Head	4
Neck	5
Withers and back.....	9
Croup	4
Chest	9
Shoulder	6
Elbow	2
Forearm	4
Knee	5
Knee to foot.....	5
Haunch	4
Stifle	2
Gaskin	4
Hock	5
Hock to foot.....	5
Foot	10
Color	3
Skin	4
Temperament	4
Action	15
Weight	3
Height	3
Symetry	10
Hind feet	10
Total.....	137

Among the latest acquisitions to the National Bureau are Ostrich, by Order—Plumage, by Goldfinch, by Ormonde, and Oraculum, by Sorcerer—Hanoverine, by Hanover. Javlin, a grandson of Hampton, has been sent to Dr. R. E. Webster, M. F. H., Ottawa, Race King, which ran a dead heat with Sysonby, will be sent to Alberta, where the demand is extremely heavy. A representative of

Great Fences

AMERICAN FENCE

Made of wire that is all life and strength—wire that stretches true and tight and yields just enough under impact to give back every jolt and jam it receives.

Made of materials selected and tested in all the stages from our own mines, through our own blast furnaces and rolling and wire mills, to the finished product. Our employment of specially adapted metals is of great importance in fence wire; a wire that must be hard yet not brittle; stiff and springy yet flexible enough for splicing—best and most durable fence material on earth.

To obtain these and in addition apply a quality of galvanizing that will effectually protect against weather conditions, is a triumph of the wiremaker's art.

These are combined in the American and Ellwood fences—the product of the greatest mines, steel producing plants and wire mills in the world. And with these good facilities and the old and skilled employes back of them, we maintain the highest standard of excellence possible for human skill and ingenuity to produce.

Dealers everywhere, carrying styles adapted to every purpose. See them.

ELLWOOD FENCE

the bureau has been sent to San Francisco, where he will secure six stallions, which will be shipped by boat to Vancouver, to be distributed in British Columbia. The work in that province is being looked after by Major S. Harris, Vancouver Club. Col. H. J. McLaughlin, Cavalry Club, Piccadilly, London, has been appointed representative of the National Bureau in Great Britain.

It is impossible to overestimate the effect of this movement on the standard of horses bred by our neighbors. It is in line with what New Jersey is doing, and with what this journal has always advocated. It is what should be done with every branch of live stock. Read again what we said on

page six of our November issue. There is something in it worth while or we would not have written it. If you are going to take any action on it this spring now is the time to start about it, and it is a shame to let such matters go over without at least very careful investigation.

There is no farm animal in the world that will pay as good as a cow properly looked after.

With a sufficient supply of clover, or other legume, the necessity for the purchase of commercial feeds like bran, gluten feed, cottonseed meal and oil meal, etc., is reduced to a minimum.

OUR FEATHERED FRIENDS

RHODE ISLAND REDS ON THE FARM.

Profit of \$4.18 per Hen.

During the summer of 1906 a friend persuaded me to try a few settings of Rhode Island Red eggs, claiming that these fowls would prove more satisfactory for general purposes than the Barred Plymouth Rocks, which we were then keeping.

We purchased two settings from which we obtained twenty-eight chicks, taken off the nest on July 4th. From these we kept fifteen pullets and two cockerels, which were housed late in the fall in quarters by themselves, and the result of our observations soon convinced us that the claims of my friends were correct. We found:

1st—That the pullets developed faster and began laying earlier than Rock pullets hatched in April and May and reared under the same conditions.

2nd—That the Reds produced larger eggs, of uniform size and shape, so that we were not obliged to cull at least ten per cent. because of under-size, as was the case with eggs laid by the Rock pullets.

3d—That they were good foragers and always busy even when well fed.

4th—That they were easier handled than the Rocks and were on this account better setters and far more satisfactory mothers.

5th—That, when dressed for market, the rich, yellow skin, free from black pin feathers, and the plumpness of their bodies, made them superior to the Rocks for either broiler or roaster.

6th—That the firmness and flavor of the flesh put them in the first rank as a table fowl.

For these reasons we decided, the following year (1907) to, if possible, replace our stock (we kept from eighty to one hundred hens) with the Reds, and to discard the Rocks.

We accomplished this, and, on January 1st, 1908, we had eighty hens and pullets. These were divided into three pens, two pens of breeders, consisting of the best hens and pullets, twenty females and two males to the pen, and one pen of forty which were not suitable for breeding purposes.

The Egg Record

Of these hens for the year ending December 31st, 1908, in comparison with the Barred Plymouth Rocks the year previous, is as follows:

	Rocks.	Reds.
1907.	1908.	
January	72	613
February	482	650

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STRONG, DURABLE.
The only absolutely successful single strand barb wire ever made.
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Southwestern Office and Warehouse, Kansas City, Mo.

March	1450	1088
April	1572	1003
May	1336	737
June	908	520
July	571	486
August	373	392
September	133	331
October	105	119
November	89	51
December	186	347

Totals	7277	6337
Average No. hens	70	58
Av. No. eggs per Hen	104	109

Taken on the basis of average number of eggs per hen per year, there is not much to be said in favor of the Reds in comparison with the Rocks, but a study of the record will show that the Reds produced thirty-four per cent. of their eggs during the fall and winter months, while the yield of the Rocks for the same months was but fourteen per cent.

As the condition of housing and feeding were the same in both years the conclusion is that the Red is a better winter layer, and, hence, from a commercial standpoint, the more profitable breed for the farm.

We Commenced the Year.

Our practice was to commence the year with from eighty to one hundred females, of which about eighty per cent. are pullets. In July and August we sell off all hens we do not want to keep, in order to make room for the young stock coming on, and the same time to reduce the feed costs. But the egg record of the Reds, last year, indicates that it would have paid us to have held these hens until October, which was not the case with the Rocks.

The Financial Result.

The statement following will show the result of the performance of the Reds for the year:

Dr.	
Cost of feed	\$141.39
Supplies	6.70
Eggs purchased	5.20
Value of eggs set	14.29
Total	\$167.58

Cr.

Value of eggs laid based on average prices of sales each month	\$222.18
Poultry sold	108.38
Total	\$330.56

Net profit	\$162.98
Average No. of hens per month	58
Value of eggs per hen	\$3.83
Value of poultry sold per hen	1.86

Gross returns per hen	\$5.69
Cost of feed per hen	\$2.44
Supplies, &c.	.44

Total cost per hen	\$2.88
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Net returns per hen	\$2.81
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The reader will no doubt wonder at the seemingly high cost of feed per hen. \$2.44 is high, especially for hens kept on the farm, but this is explained by the fact that the feed cost included also the food consumed by the young stock, the value of which, at 75c each, is \$63.75.

The same food supply furnished rations for four old and twenty young ducks having a market value of at least \$16.00. Therefore, since the hens have been charged with the entire cost of all the feed, it would be entirely proper to give them credit for the value of all the poultry produced, as well as that actually sold. Hence we have:

Value of eggs laid and poultry sold as above	\$330.56
Value of young stock Dec. 31	63.75
Value of ducks raised	16.00

Making a total of	\$410.31
Produced at a cost of	\$167.58

Showing a profit of	\$242.73
An average per hen of	\$4.18

Their Houses.

We have four houses, each with a separate yard. One house, 12x14 feet ground area, two 10x12 ft., and one 6x8 feet. All houses face the south, and each is fitted with drop-droppings board and removable roost poles. Glass windows are used but we are of the opinion that sash covered with muslin would be better.

The houses are of our own construction, built on sills above the ground. On the inside of the sills we place old boards or plank reaching to the ground surface, and then fill to the top of the sills with earth and gravel. The soil being a sandy loam with sand and gravel subsoil, the drainage is good, hence no floors are used.

The larger house will accommodate sixty chickens without overcrowding, but we aim to keep the number down to from forty to fifty. The 10x12 houses will accommodate thirty chickens, but as these are used for the breeding pens, but twenty to twenty-two are kept in each. The smaller house, 6x8 feet, is an emergency house used for surplus stock in the fall, and for setting hens in the spring. It will also answer for a breeding pen of six to eight hens and a cock.

What and How We Feed.

Our chickens are fed almost entirely a grain ration consisting of corn, whole or cracked, wheat and occasionally some oats. Aside from this during the winter we feed some dry bran in which we mix some beef scrap.

The morning meal consists of whole corn, three parts, and wheat, one part. When oats are used, the mixture then consists of corn two parts, wheat one and oats one. The evening ration consists of corn only, and occasionally some oats.

In the winter months the morning's grain is scattered in the litter, consisting of straw and clover hay, in

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WILSON BROS., Sole Mfrs., Easton, Pa.

the evening after the fowls are at roost, so that they will find it ready for them by day break.

The bran and beef scrap is fed from hopper or troughs.

In feeding the morning grain ration we aim to give one liberal handful to each fowl, or about two quarts to each twenty-five. Oyster shell and grit are kept in boxes in each house.

Our water supply is drawn from a well at a temperature of about 65 degrees, but in extremely cold weather the hens seem to relish it better if the chill is taken off by the addition of hot water sufficient to bring the temperature up to about blood heat. Of course we aim to see that clean water is always before them.

The Chicks.

All our hatching is done with hens, thirteen to fourteen eggs per setting. Two, three or four hens are set at a time. We commence to set in February and keep it up until about the first of May, bearing in mind always, however, that, as Mark Twain says, "The best time to set a hen is when the hen wants to set." If the weather is cool when the first hatches come off we give each hen from ten to fourteen chicks in a coop placed inside the hen house. But hatches coming off after April 15th are placed out doors, in old brooders converted into coops, about twenty chickens being placed with each hen. We aim to raise from two hundred to two hundred and fifty each year.

The feed of chicks for the first few days consists of grit and dried bread crumbs; this is followed by chick food until the chicks are about six weeks old, when we substitute cracked corn and whole wheat, one-half each.

In October, after the old stock has been sold off, we remove the young stock to the houses, after which we separate the pullets and cockerels, and then sell off the pullets we do not want to keep. For these we get \$9.00 per dozen. The surplus cockerels are killed for market, or sold to neighboring farmers, and average about \$1.00 each.

Marketing of Eggs and Poultry.

Our eggs and dressed poultry are all disposed of to private customers. The eggs are carefully sorted, and put up in boxes of one dozen each, and the average price realized last year, including eggs sold for hatching at \$5.00 per hundred, was 43c per dozen.

For dressed poultry, broilers and roasters, the price ranged from 20c to 25c per lb.

Cleaning and Disinfecting.

Our houses are cleaned regularly once a week, and oftener if required. The manure is kept in barrels covered over, and is used in the spring, mixed with wood ashes, for the planting of the corn crop. The disinfecting and spraying are done with a knapsack auto-sprayer, and we have found Zenoleum to be an excellent preparation for this purpose. Mixed with water, about one-half pint to three gallons, it will kill all mites, and, at the same time, thoroughly remove all objectionable odors. Three gallons of the mixture is sufficient to spray the four houses.

In General.

My purpose in writing the fore-



How To Raise Them? That's the question!

Nearly every person can hatch chicks with hens or an incubator, but very few can raise the chicks. Very few know how to get them through the chick period to the dollar bringing time. Very few know how to make money by raising poultry. But there is big money in poultry and we can tell you how to get your share.

"CHICK CULTURE"

Dr. A. A. Brigham, the acknowledged poultry authority, has written a wonderful book, entitled, "Chick Culture." It covers everything from the egg to the mature fowl. It tells among other things how to hatch chicks successfully; how to quickly develop them; what to feed them and how to feed; how to construct serviceable, inexpensive houses and furnish them at little cost. It is plainly written, easily understood. It is full of practical poultry knowledge from cover to cover. Invaluable to any one who will follow its practical teachings. A full size book which thoroughly covers the subject of chick culture from beginning to end.



Dr. Brigham.

BIG SPECIAL OFFER

\$1.75 and "Chick Culture" For \$1.00

POULTRY HUSBANDRY is a leading poultry monthly magazine, edited by men well known to the profession, and contributed to by leading experts. It is always well-printed and profusely illustrated. A year's subscription is 50 cents.

FARM PRESS is published monthly, 160,000 copies and edited for the farmers all over America. Every farmer, big or little, should read Farm Press. Its many departments make it interesting to every one on the farm. One year, 25c.

GREEN'S FRUIT GROWER, a high grade monthly magazine for the fruit growing farmer and his family. Owned and edited by Charles A. Green, one of the greatest horticulturists of the day. One year, 50c.

VICK'S MAGAZINE, for over 30 years has been recognized as one of the leading family journals. It goes to over 100,000 homes every month. Every issue is a special number and its several departments are always of interest to every member of the farm family. It especially appeals to the women and young folks. One year, 50c.

"CHICK CULTURE" the great poultry book, needs to be seen to be fully appreciated by the poultryman who needs help and advice with his chickens. It covers poultry raising from A to Z. Its information is clearly told and logically arranged so as to be easily found. "Chick Culture" is worth a gold dollar to every poultry raiser, even if he has only a very small flock.

SPECIAL NOTICE

An arrangement has been made which admits of the above liberal offer being made the readers of this publication. It means that you will receive for the low price of \$1.00, one of the very best poultry papers in the country, a high grade farm paper, a horticultural, and a home magazine, all for one full year, and a copy of Dr. Brigham's book "Chick Culture." This is one of the most liberal offers ever made. Take advantage of it now. Send remittance of \$1.00 in any convenient way to:

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P. S. The above special offer is open to our old subscribers to **POULTRY HUSBANDRY** as well as new ones. Send us your order at once and we'll advance your subscription one year.

going is to give the readers of Blooded Stock, The Eastern Farmer, Dairyman and Poultry Raiser, the farmers especially, an idea of what can be done with poultry on the farm. And while the record is not by any means perfection as far as the egg yield per hen is concerned, yet I think all will agree that in the main, the result is good, and that the facts as stated only add one more proof to the value of the hen to the farmer when properly housed, half properly fed, and her returns carefully handled for market.

Now I was not brought up on the farm, I am sorry to say, and it was not until about five years ago that I ever attempted to manage one, but, from boyhood I have always had a fancy for farm life. My business, however, is in New York City, consequently I have but little time to devote personally to the farm, but I have always made it my business to watch the stock and poultry carefully,

to keep a strict account of all receipts and disbursements, and to have a separate account of the poultry. As a result I know the latter is one of our best assets.

The question may be asked, how much labor is required to care for this poultry, for which no charge is made? The answer is that, assisted by my good wife, we handle the poultry entirely, calling upon the farm labor only to clean the houses and supply the water. In the spring and summer I attend to the feeding in the morning, and when the days are short, I do this at night by lantern light. My wife, or little daughter, attends to the feeding in the afternoon, and in the hatching season my wife takes entire charge of the chicks, feeding them at first four times each day.

The culling of the fowls I attend to myself. Also the arrangement of the breeding pens, and, that I may be able to distinguish hens from pul-

lets, I mark, with leg bands, all hens kept over.

While the Rhode Island Red has its objectionable features like all breeds, it is, when well bred, an attractive fowl, their handsome plumage and thrifty make-up adding beauty and life to any barnyard.—A. C. Thomae, Brookside Farm, Bound Brook, N. J.

KEEPING LAYERS IN LARGE FLOCKS.

Slowly but surely the owners of large egg farms in this country are coming to believe that the proper method of housing layers is to keep them in large flocks, running from two to three hundred to as high as fifteen hundred in one room.

When fowls are thus kept in large numbers the sanitary conditions must be very closely looked after if disease is to be kept out of the flock.

Prof. Graham, of the Ontario Government farm at Guelph, has been experimenting along this line, and he says that the large flock idea is the correct one, but he hesitates to come out "flat-foot" with it for he doubts whether the farmers will take the same sanitary precautions with their poultry that they do with their other live stock.

When poultry is housed in large flocks the cost for buildings is very greatly reduced. One successful New Jersey poultryman has as many as 1500 layers in one room 160 feet by 116 wide. This gives less than two square feet per bird, and, as his house was erected for \$1500, it costs him only \$1 to house each bird, and, at this cost, he has one of the most modern and up-to-date poultry houses in the east.

BONES BEST WHEN GREEN.

If you are feeding green bone to your poultry you should take care to see that the bones are green. Green bones contain the natural juices as well as the adhering substances, making them superior to the bones that have laid on the ground a while and have lost all their juices and animal matter. Green bones are also more soluble and capable of having the animal matter digestible.

SHOULD HAVE PLENTY OF DRINKING WATER.

Three out of four parts of an egg are composed of water and for this reason care should be taken to see that the layers are always supplied with plenty of it. In the cold weather it is better to give it to them with at least the chill taken off. Some professional poultrymen give it to them hot in the morning so that as soon as their fowls leave their roosts, they immediately go to the drinking fountains and have their whole system, which may have become chilled over night, warmed up, and the blood set quickly in motion. Those who have given it a thorough trial and who take care to keep their fowls out of draughts are very much in favor of the hot water idea.

POULTRY BREEDING VERY POPULAR.

It is really remarkable how many people are inquiring into the details

of poultry raising. There seems to be an earnest desire to get the very best information and the most approved methods. The beginners are anxious to know how the successful manage and the experienced are continually reaching out for improvements.

All want to succeed and to see others succeeding. The enterprise is full of interest and the results encouraging. There is nothing more helpful in all this than good poultry literature.

The man or woman that reads is surer to succeed than those who do not, in any business. The most earnest workers find themselves greatly benefited by reading of the work of others. Through good management and attention to details, the poultry industry is sure to lead on to success. Raising poultry is not an obscure means of earning money, but one that is on the front yards of "get there."

One needs to study the demands of the trade, and they are healthy fowls, large eggs, tender broilers, and lots of them. In a small way, a few hens used to do the business, but now it takes thousands of hens and more thousands of eggs.

POULTRY RAISING THE RAGE.

Things go in streaks. A few years ago everyone was riding bicycles, now it's raising poultry. Mr. A. D. Hosterman, publisher of Poultry Success, writes:

"No line of agricultural, live stock, or 'next-to-nature' interest is so great and so fascinating as poultry. Thousands of business and professional men, clerks, employees in factories and in every and all lines of endeavor, to say nothing of farmers and those living in suburban and rural communities, are engaged, and more and more are engaging, in poultry raising, either as a recreation, or side issue for pleasure and profit.

Not only men, but women, boys and girls are fascinated with the occupation, and it is safe to say that no interest is growing faster than poultry raising.

The latest and most reliable statistics show that the annual value of poultry products in the United States is now in excess of three quarters of a billion dollars. It is probably equal to two-thirds the annual total of the corn crop and eight times the annual gold production of the entire world."

Smoke the Meat.

The pork put in the barrel around Thanksgiving is ready for smoking. Depends on how salt you want it. We tried some of ours salted week before Christmas but it was not salt enough to give pea soup the right flavor. And by the way do you know much better eating than pea soup? By George, when made right, it's good "feeding." Hot corn bread and coffee along with it, make a supper fit for a king.

Several excellent methods of smoking meat have been published recently in our columns.

Fruits and Vegetables

CARE OF HOUSE PLANTS.

To succeed with plants one must love them and use common sense and good judgment. To make a delicious pudding, put in a little of this and a little of that—a pinch of this and just a dust of that. Just use your judgment and the pudding will almost melt in your mouth.

When I was a child a neighbor was always telling, with great pride, how much she accomplished every day, assuring us that she had a "faculty."

If some one would only tell us where to obtain all these desirable qualities!

For some people plants never will thrive, while for others they cannot grow rapidly enough, and if half dead, they return to life. Yet, the first may seem, at least, to love the plants as well as the second. Then why the difference? Who can answer? Must we conclude that some people are lacking in judgment? Is it not true that "Successful flower culture requires study?" That one should learn the nature of the plant, its habit of growth, of what climate it was a native, hot or cold, moist or dry? Did it grow in sunshine or in shade—in rich soil or in sand? Knowing these facts one can use sense and judgment to good advantage. The sun will be given to the plant that needs it, the shade to the one that rejoices in that.

Some things that all plants need in common—clean pots, inside and out, pots not too large, and the whole plant be kept clean. Large-leaved plants, like palms and the rubber tree, may be washed once a week. Some say palms are benefited by sponging the leaves once a week with water mixed with sweet milk. If a scale has found its way to the palm, use a soft brush and soap suds to dislodge it. A small paint brush is best. If red spider attacks any large-leaved plant, sponge with water as hot as the hand can bear. For smaller plants, wrap a cloth around the top of the pot and close to the plant so as to hold the earth in place, then immerse the top in hot water.

All the plants should have a shower bath once a week, at least. Be very careful about the watering of the plants. Almost more depends upon this than any other one thing. Here is a fine place to use good judgment, in giving just enough and not too much. "Watering by the saucer" seems very much the safest way. Give the plants fresh air whenever it

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PACKETS CHOICE FLOWER and GARDEN SEEDS

To introduce our high-grade Seeds we will mail the following 15 packets and our large illustrated 1909 Catalogue, also a coupon good for 10 cents, all for one dime.

VEGETABLE SEED: Beet, Cabbage, Cucumber, Lettuce, Onion, Parsnip, Parsley, Radish, Tomato and Turnip. A good kitchen garden.

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can be done safely, but never let them stand in a draught. Apply fertilizers when the plants are growing and only then, being careful not to give them too much.

THE SEED QUESTION.

Considerable discussion is going on at this season of the year relative to the sowing of good pure seed. The seed is nothing more nor less than a store house of plant food, intended to nourish the germ until the root and leaf are developed. The germination to take place, moisture, oxygen and a suitable temperature are necessary, under these conditions the seed swells, oxygen is absorbed, a part of the carbonaceous ingredients is oxidized, heat is developed, and carbonic acid is evolved. During these changes the solid ingredients of the seed gradually become soluble; the starch and the fat are converted into sugar.

With this supply of soluble food the root and leaf stem are nourished. They rapidly increase in size and burst through the coats of the seed.

If the external conditions are suitable, the root and leaf commence their separate functions.

How important then to select large plump seed that will be able to supply the food required until the root is established in the soil, thus giving the young plant a good start in life. Sowing large and small grains will never produce the same results as large plump even seed. The smaller seed being weaker is apt to be buried too deeply and this can not reach the surface as quickly as large and it consequently suffers in the race.

RAISE GRAPES ON THE FARM.

Good grapes in abundance can be had on any farm by a careful selection of a few good varieties, and by careful planting, and care of the vine after it is planted. The time that is required to take care of a few vines would not amount to very much and would be worth more in the home and in the life of the family than the inconvenience it would be.

There is plenty of time between sun and sun for all the care necessary to be bestowed on tree and vine, besides what is necessary for the farmwork, if farmers would only try the experiment. Plant trees and vines on the farm. There is solid enjoyment and inspiration in caring for them and in seeing them grow and bear fruit, and there is solid educational help and stimulus in devoting a small part of the time to them, to say nothing of the great advantage to the entire household of having abundance of fine apples, pears and grapes to enrich the too often monotonous fare of meat and potatoes.

Farms can be made more attractive and productive of comfort and satisfaction by cultivating a variety of the best kinds of fruit, and he who plants a few good trees now will enjoy them during his own lifetime, and his children will be grateful to him for them after he has passed on to his reward.

Don't forget the salt—regularly, not now and again when you happen to think of it.

HIS DOUBLE ACTION CUTAWAY HARROW



CLARK'S DOUBLE ACTION "CUTAWAY" HARROW

WITH EXTENSION HEAD is needed on every farm. It will increase your crops 25 to 50 per cent. This machine will cut from 25 to 30 acres, or will double-cut 15 acres in a day. It is drawn by two medium horses. It will move 15,000 tons of earth on a foot a day, and can be set to move the earth but little, or at so great an angle as to move all the earth one foot. Runs true in line of draft and keeps the surface true. All other disk harrows have to run in half lap.

The Jointed Pole takes all the weight off the horses' necks, and keeps their heels away from the disks.

We make 120 sizes and styles of Disk Harrows. Every machine fully warranted. Entire satisfaction guaranteed. Send today for free booklet with full particulars.

CUTAWAY HARROW COMPANY
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THESE SICKLY-LOOKING CHICKS NOT FED OUR WAY

They wouldn't be wilted, forlorn and droopy as are these poor little fellows. What's the matter? Likely some one has been feeding a lot of table scraps, or sour bread, or some other indigestible mixture that is fermenting in their stomachs. Tomorrow the owner will find eight or ten dead, and wonder: "What killed my chicks?" Chicks are babies and must have baby food. That's why Puritan Chick Food is so successful in rearing chicks, keeping them well and holding down the death-rate. It just "fits" the interior mechanism of the digestive organs of a chick.

Puritan Chick Food

(The Safe Kind)

has a delightful taste and odor to a little chick, because it is compounded of those very pure, wholesome and sweet elements that naturally attract it. Your little "puff-balls" will make things fly scratching; they are always happy and busy, when fed on it. Some of the largest poultry plants use Puritan Chick Food. It pays them. It will pay you, no matter how small your flock. It is foresight, wisdom, economy and profit, for you always to keep it on hand. It's a true life insurance for your chicks, all other things being equal. We guarantee it so, and refund money if you're not satisfied. No fussing about it, either—your word is final. Puritan Chick Food is put up in 5-lb. boxes for 25c; 25-lb. bags \$1.00; 50-lb. bags \$1.75; 100-lb. bags \$3.25. Ask your dealer for it. If he hasn't it we'll supply you. Booklet free. Write now for it.

Puritan-American Poultry Food Mfg. Co.,
Bound Brook, New Jersey



POISONOUS PLANTS.

A word of warning has been sounded in regard to the flowers that should be admitted to the sick room. It is said that all flowers grown from bulbs are dangerous in such places. That the perfume of the hyacinth, lily of the valley, tuberose, daffodil and narcissus are as evil in effect as a dose of morphine, without conferring any benefit.

Besides the flowers whose odors are poisonous, it seems best to banish from the sick room all others that have a heavy fragrance. To many people, such flowers are very depressing and sickening. Always have some color in your bouquets. White flowers, while beautiful, are not as cheery as those with color.

The odor of the tulip is said to produce light-headedness, if inhaled for a time, causing the afflicted one to do and say all sorts of ridiculous things. This condition often lasts for an hour or two, and is followed by deep depression.

We all know that the poppy occasions drowsiness through the amount of opium contained in its blossoms. In countries where they are grown in vast quantities, it is said, that they

sometimes occasion the death of tourists.

The pretty little Primula obconica, introduced from Central China in 1882, with its star-shaped white flowers, sometimes tinged with lilac, and much admired because its blossoms so continuously, affects some people in the same way as poison ivy, so that those susceptible to poison need to handle it with greatest care.

ODD NOTES.

Sow tomato seed now in a box of rich soil in the house, unless you arrange for it in a hot bed.

Also sweet peppers.

Having arranged for the hot bed, as instructed in our January number, and made out your order for seeds, there isn't, as yet, much else to be done in the way of gardening.

Watch the cabbage if kept in a root house or cellar. Cut off all decaying leaves. Nothing makes quite such a horrible odor through the house as decaying cabbage in the cellar.

Keep an eye on potatoes and sort out the rotting ones. If you are going to have too many the pigs and cows would enjoy a feed.

HOME BEAUTIFUL

A VALENTINE PARTY.

If you are planning to entertain your friends this winter, you cannot have a better month in which to do so than February.

A Valentine party is nice for either young or old, and can be made very attractive with little expense. Send out your invitations, written with red ink, upon hearts cut from white cardboard. Try to have an even number of girls and boys, or of older persons, as the case may be, and have ready as many valentines as there are to be guests. Let some older person run a post office, being careful to see that the young men get the valentine written for them and also those intended for the girls. A good way for this is to have names of well known characters on the envelopes, and from these names the boys may find their partners for refreshments. We suggest a few names, but no doubt you may think of some you prefer:

Jacob and Rachel, Miles Standish and Priscilla, Ruth and Boaz, Othello and Desdemona, Anthony and Cleopatra, Perucio and Katharine, Mary and John, Lorenzo and Jessica, Basanio and Portia, Isaac and Rebecca, Sandy and Janet, Jean and Marie, Mike and Katy, Pat and Bridget, Hans and Gretchen, Lysander and Hernia, Hamlet and Ophelia, Henry VIII and Anne Boleyn, Romeo and Juliet, Macbeth and Lady Macbeth, Louis XIV and Marie Antoinette, Leontes and Hermione, Adam and Eve, Adonis and Venus, Ivanhoe and Rowena.

Each valentine should be somewhat humorous and should be read during the supper hour.

Serve the ice cream in heart-shaped boxes if you can buy them, or have time to make them. Let it be vanilla with a few candied cherries to look like drops of blood. Make sand tarts and cut them with a tin made heart shape. When cooked, put a couple of splashes of cochineal on each, also a tiny arrow cut from gold paper. Paste the arrows on with a little white of egg.

This makes a good entertainment for a church, and by selling the valentines for ten cents each, and charging fifteen cents for the supper, a goodly sum may be realized. We made \$30.00 for our church last winter in this way.

A WASHINGTON BIRTHDAY PARTY.

George Washington's natal day affords another February opportunity for bringing one's neighbors together.

If you have an artist in the family have a bunch of cherries painted on the upper left hand corner of your invitation, and a hatchet on the lower right. Decorate your home with red, white and blue tissue paper.

Pass paper and pencil to each guest and see how many words each can make from the name, "George Washington." Limit the time, and give a prize to the one having the longest list. The prize might be a small silk

flag, a picture of General Washington, or some views of Mount Vernon, his home on the banks of the Potomac. A hatchet would make a useful man's prize and would cause much merriment.

For refreshments have small cakes, covered with white and red icing. Serve these upon large blue plates and arrange in such a way that the guests may, at once, get the idea of red, white and blue. To make the red icing use a few drops of cochineal in ordinary white frosting. Make pistachio ice cream, and on each serving place four or five candied or Marachino cherries. If you cannot get pistachio for your ice cream, you can make your own green coloring out of spinach. Take a few leaves, wash thoroughly, drain off the water, pound in a mortar or chopping bowl, and add a little salt to a cup of juice. Put into a sauce pan over the fire and stir until it curdles. Drain through a fine sieve and press what remains on the sieve through it, and mix with half the quantity of powdered sugar. Keep in a cool place. Add this to vanilla ice cream and you will have the green to go with your red cherries.

Pretty souvenirs for each guest could be made of tiny satin flags. These can be bought by the yard, and there are from nine to twelve in a yard, according to size. Get red and white ribbon to use for hangers, then paste a small calendar upon each one.

A GAME FOR THE VALENTINE PARTY.

Pin a sheet on one side of the room, or across a folding door, upon this, in the centre, and about four feet from the floor, fasten a large red heart. Cut arrows from strong paper, giving one to each person. Blindfold them, one at a time, turn each around three times, then start him for the heart, and see how nearly he can pin the arrow upon the centre of the heart. Have a number upon each arrow, and give a prize to the one getting his nearest to the correct position.

A red heart-shaped box filled with red and white candies would make a suitable prize.

HOW NOT TO BOIL EGGS.

If you have always allowed your eggs to boil when cooking them, you do not know how delicate an egg can really be when cooked properly. Allow a pint or more of water for each egg. Have it boiling briskly, put the eggs in (they must be covered with water) remove from stove and place the pot upon a table where there is no draft, and see that your cover fits well so that no steam escapes. In the summer, when the eggs are warm, they will be cooked in six minutes; in the winter, if you keep them in a cold pantry, it will take eight minutes. Cooked in this way, the white of the egg seems like jelly instead of the tough, leathery substance obtained by the usual method of boiling hard for three minutes.

Soft Gingerbread.

One egg, one-half cup molasses, one-half cup sugar, one cup rich sour cream, one teaspoon ginger, one heaping teaspoon soda, a pinch of salt and flour enough to make as stiff as cream cake. Bake in a slow oven thirty minutes.

This receipt makes good small cakes by adding raisins and currants also more flour and cooking like drop cakes. Omit the egg and it will still be good.

Ginger Cookies.

One cup N. O. molasses, one cup brown sugar, two cups thick, sour cream, one heaping cup butter, two eggs, three teaspoons soda, two tablespoons ginger and flour enough to make a soft dough. Bake in a quick oven.

Sour Cream Cookies.

One cup of sugar, one cup very rich sour cream, one egg, one even teaspoon soda, nutmeg to taste, and flour enough to roll softly. These will not be good unless cream is very rich.

Sour Cream Salad Dressing.

One-half cup vinegar, one teaspoon mustard, a pinch of red pepper, two tablespoons of sugar, a teaspoon of salt, beat into the above mixture the yolks of three eggs, cook in a double boiler until it thickens; when cool add a cup of sour cream that has been beaten until light. This makes a delicious salad dressing, and is better than one made with whipped sweet cream.

Dry Bread and Old Crusts.

Do you sometimes find a collection in your bread box of hard pieces that you hardly know how to dispose of? If you have any children in the family, try my way of using up crusts, etc., and see if the children won't wish for more than you have. Dissolve four tablespoonfuls of sugar in one pint of hot water, dip your bread into this, let the surface get wet, but do not allow the pieces to soak. Place these in pans slightly greased with butter, sprinkle a little cinnamon upon each, and place in a hot oven. When they are thoroughly heated and soft, serve at once with butter, jelly

Paint Without Oil

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A Free Trial Package is Mailed to Everyone Who Writes.

A. L. Rice, a prominent manufacturer of Adams, N. Y., has discovered a process of making a new kind of paint without the use of oil. He calls it Powderpaint. It comes in the form of a dry powder and all that is required is cold water to make a paint weather proof, fire proof and as durable as oil paint. It adheres to any surface, wood, stone or brick, spreads and looks like oil paint and costs about one-fourth as much.

Write to Mr. A. L. Rice, Manufacturer, 47 North St., Adams, N. Y., and he will send you a free trial package, also color card and full information showing you how you can save a good many dollars. Write to-day.

or jam. We change about so that the children will not get tired of any one kind. Sometimes I leave the bread in the oven until each piece is crisp, and the children will eat it, just as it is, and like it either hot or cold.

How to Make Sand Tarts.

Two cups sugar, one cup butter, three cups flour, two eggs, reserving one white, cinnamon, and almonds or raisins.

Roll out thin and cut into desired shapes, spread the white of egg on top, sprinkle with cinnamon and sugar, and press a blanched almond, or a raisin, in the centre. The almonds or raisins may be omitted. Bake in a quick oven until a delicate brown, being careful not to let burn.

Sour Cream Goodies.

Many housekeepers do not know how much work can be saved by using sour cream for cooking instead of butter and sweet milk. In the first place the work of making the butter is saved, and then it is much less trouble to beat up the sugar and cream than to cream butter and sugar together.

For sour cream receipts soda is used instead of baking powder. Great care must be taken in using soda, as too much destroys the flavor of the cake, and unless it is thoroughly dissolved there will be unsightly brown spots in whatever you make. The soda should be dissolved in a little hot water, and be added to the mixture just before the flour. Some cooks advocate sifting the dry soda through the flour, and say it loses its strength when dissolved, but having dissolved it in my cooking for twenty years with most satisfactory results, I feel quite safe in advising its use in that way.

As soda is much cheaper than baking powder, and also more wholesome, the following receipts should appeal to all good housekeepers:

Sour Cream Cake.

One cup rich sour cream, one cup of sugar, two eggs, two cups flour, one level teaspoon soda and half a teaspoon of salt. Flavor to taste. Nutmeg will be found very satisfactory.

Using this for a foundation you can make many cakes, desserts, etc. It may be baked as a loaf, in layers, or in gem pans. A plain fruit cake may be made by adding a cup of raisins, a cup of currants and some thinly sliced peel. Save a part of your flour, and use it to thoroughly flour the fruit which is to be added after all the other ingredients.

A good pudding may be made in this way: put a thin layer of the sour cream cake batter into a deep, well-greased pudding dish, then a layer of apples, cut as for pie. Put the rest of your batter on top, and bake in a moderate oven.

Serve hot with a good sauce. Either of the following would do:

One cup of brown sugar, two tablespoons of butter, one heaping tablespoon of flour; cream these together, then add two cups of boiling water, and boil ten minutes. Flavor with nutmeg.

Or, two eggs, one cup of sugar, one



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This offer is made by this well known house to introduce their large catalogue of general merchandise, household goods, jewelry, novelties, etc., and the readers of this paper are requested to send their name and address immediately, enclosing four two cent stamps to cover packing and postage.

Send to-day and be the possessor of a piece of jewelry that you will be very proud of, and which does not cost you anything.

cup of boiling water and one large or two small lemons. Grate a parting careful to use only the yellow of the lemon peel into the sugar, be part as the white is bitter. Squeeze and strain the juice and boil all these ingredients together four minutes. Before serving, add the well-beaten eggs, and remove from the fire as soon as the sauce begins to foam. This is sometimes called foaming sauce.

HOW TO WASH BLACK SKIRTS

Choose a bright, windy day, when there is no freezing. Boil slowly five cents worth of soap bark in two quarts of water for one hour, and strain through a fine piece of muslin. Pour half of this liquid into a wash tub and add enough warm water (not hot) to make five inches of water in the tub. Put your skirt into the water and let it soak for ten minutes, then put it on the wash board just as you would put it on an ironing board. Begin at the top of a breadth and wash to the bottom, rubbing it well upon the board. Take each breadth in this way, then take the skirt off the board and give the hem an extra rub all around. Put the

skirt through a wringer, empty this first water, and put in clean, adding the second half of the soap bark liquid. Thoroughly wring the skirt in this water, put through the wringer, hook down the placket and put the front gore opposite the back, then hang up by the band with four strong clothes pins.

Do not use soap of any kind, and do not use clear water for wringing, as if you do not add the soap bark water as instructed your skirt will look mottled. No matter how black your rinsing water looks, the skirt will be all right if you have followed directions carefully.

When perfectly dry, put the skirt wrong side out on an ironing board, place a cloth that has been wrung out of hot water, over it, and press with heavy, hot irons. You will find it looks like new, and that you can do this several times to the same skirt. The expense is small, and the work light.

VETERINARY COURSE AT HOME.

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ODDS AND ENDS OF INTEREST TO OUR PEOPLE.

THE JEWS AS FARMERS IN AMERICA.

One of the notable events in New York City during January was the first annual conference of the Jewish Farmers' Alliance of America. The surprise about it all was that there were Jewish farmers here at all, and that the twenty-nine delegates represented over two thousand actual, not play, farmers, gardeners and poultry raisers.

Why should there not be Jewish farmers? It would be simply a return to an occupation in which they were at one time so successful. Do we not know that entire Palestine was a veritable garden two thousand years ago. In New England many abandoned farms are being taken up by Jews, who are making money on them.

Prof. H. L. Sabsevitich, who founded the Woodbine colony of Jewish farmers in New Jersey, said that the few Jewish farmers now tilling American soil were laying the foundation for a new occupation, so far as modern times went, for the Jews, although 2,000 years ago, agriculture was a chief pursuit of their forefathers. He declared that the Jewish farmer had come to stay.

Samuel Kleinfeldt, of Alliance, N. J., was exhibited as an example of the fact that Jews could go upon the farms and stay there. Kleinfeldt is now working the farm his father worked, and himself has children who are going to live in what will by that time have become the old homestead—and there isn't any mortgage on the old home either.

"How to succeed on a ten acre farm" was the topic that Max Ettinger discussed. Mr. Ettinger has a place at Carmel, N. J., where he is said to raise some of the best strawberries grown in all south Jersey.

Moses Horowitz, who is also from Carmel, began life as a farmer on a capital of \$25. He thinks he's done more with it than he could have accomplished with a pushcart and that he has had a better time at that.

"Three years on a farm" was the topic of the talk made by Abe Kaufman, of Ellington, Conn., when he took up tobacco raising.

One of the resolutions, if carried out, will provide for an annual show during October in New York City, of cattle raised by Jews. Some of the other matters thoroughly discussed were: A plan for organized co-operation for buying and selling; a fertilizer fund commission; the establishment of a market with competent houses in the leading trade centres, and the appointment of a committee on insurance of stock.

The most extraordinary feature of the whole conference was the physical exhibit constituted in the persons of the delegates. Probably it would be impossible to find in all New York twenty-nine huskier or more contented looking Jews than those same delegates. Deep chested, broad shouldered, long limbed and generally able bodied they certainly are.

LAND FRAUDS REACH OVER ONE HUNDRED MILLION.

Secretary Garfield Reports Over 60,000 Cases.

The Secretary of the Interior has recently asked Congress for an increase of half a million dollars to prevent depredations upon public lands, and to protect public lands, and reported 1,094 suits now in court, some of them involving millions of dollars of land, timber and coal actually stolen outright from the Government. He went on to say:

"The investigation of the past two years by special agents, aided by aroused public sentiment, have produced evidence and information of wholesale and astounding frauds upon the public lands. And such cases necessarily require much time from the field force.

As a result we have of record in the special service division of this office 32,000 distinct cases demanding further field action, notwithstanding that during the past seventeen months there have been investigated a total of over 28,000 cases.

We are really in a race with the statute of limitation in many large matters. A most cursory knowledge of the necessity of immediate action—action before the statute of limitations intervenes and witnesses die, or memory clouds—shows the inadequacy of \$500,000 per annum to recover a billion in property."

It seems almost beyond human belief, that an organized body of respectable men could be so fully in accord as to deliberately steal property to which they positively knew they had no right. We hope Congress will give Mr. Garfield all the money and backing necessary to recover this property and to punish to the utmost such despicable criminals.

ASTONISHING DAIRY FIGURES

Wisconsin, in 1906, produced 125,000,000 lbs. of butter, having a value of \$35,000,000, while its cheese returns for the same year added \$17,000,000 to the account. The dairy products of the State exceed by \$3,000,000 the total income from wheat, oats, barley, flax and potatoes. The creamery butter alone in the State of Iowa had last year a valuation of \$28,000,000, while that of the crops above named totalled \$55,000,000. Minnesota has increased the annual value of the output of her dairy products from \$6,000,000, in 1890, to \$41,000,000 at the present time. Professor Hecker, of the Minnesota Station, estimates that he is able to get product worth \$2.24 out of every dollar's worth of fodder fed to the College herd. Every herd will not do so well, which is clear proof that there are many cows that are nothing more than female kine.

Send Your Cow, Steer and Horse Hides,

Calf, Dog, and other skins, to the Crosby Frisian Fur Company, Rochester, N. Y., to be converted into Fur Coats, Robes, Gloves, Mittens or Rugs. They are the largest custom fur tanners of large wild and domestic animal skins in the world. Send for illustrated catalogue.

BLOODED STOCK for February.

The Fence That Lasts.

There isn't anything that the farmer buys in which a mistake is more hopeless than in wire fencing. If he gets "stuck" he is stuck for good, because there is no possible way of remedying the defect; it is a case of buying a new fence. The Brown Fence & Wire Company, of Cleveland, Ohio, is sending out some interesting literature on wire fence, showing why so much of the fence put up in recent years has rusted out and gone to pieces in so short a time. They point out very clearly that a fence, like a chain, is only as strong as its weakest part. It must be good all over to be good at all. A strong, heavy stay or upright is as much importance as a heavy lateral. They moreover show that in recent years much of the galvanizing that has been done is hardly worth the name of galvanizing at all. The wire is merely dipped into melted zinc instead of being put through a true galvanizing process. We know everyone of our readers will be interested in what Mr. Brown has to say on this fence question. Send to him for his little book. It will open your eyes.

If there is one thing more than another that has disgusted the farmer it is the absolute uncertainty of the so-called "galvanized" fencing sold of late years. The writer spent quite a round sum putting up a hog fence, buying wire recommended most highly, and being perfectly willing to pay the price to get the quality. This fence has not been up so very long and yet a hog can go through it almost anywhere.

We have had no personal experience with the Brown fence, but if it is right our readers will be glad to know about it.

There are other fences advertised in this number. If you are going to buy a fence this year look into them all and get the best, get what you want. Read their booklets and see their fences at your dealer's, or get samples by mail.



Post Cards Free

Here are 12 as handsome Post Cards as you have ever seen. The flower cards are all embossed—raised flowers. There are six of these. The other six are scenes like the one above—all beautiful and grand—nothing cheap or small about any of them. These twelve cards will be sent to anyone FREE. Just send a dime—stamp or coin—for a three months' trial subscription to Farm and Stock or The Fruit-Grower. These papers will delight you. They are the best on following subjects: Fruit Growing, Corn Growing, Stock Raising, Farm Veterinary, Farm Women, Dairying, Poultry Raising and Bees, etc. Write at once, and address the paper you want.

FRUIT-GROWER, FARM AND STOCK, Box 412, St. Joseph, Mo. Box 412, St. Joseph, Mo.

BLOODED STOCK for February.

FEED FAIRFIELD'S BLOOD TONICS POWDERED

Fairfield's Tonic and Regulator will put new life into your horses.

It strengthens digestion; makes rich, red blood, healthy nerve tissue and sound flesh. It keeps horses regulated and prevents worms. If your horse already has worms, Fairfield's Blood Tonic will absolutely clean them out. It wards off infectious diseases—flu, pneumonia, pink-eye, shipping fever, pneumonia, and blind staggers, makes the coat smooth, glossy and handsome and puts the whole animal in prime condition.

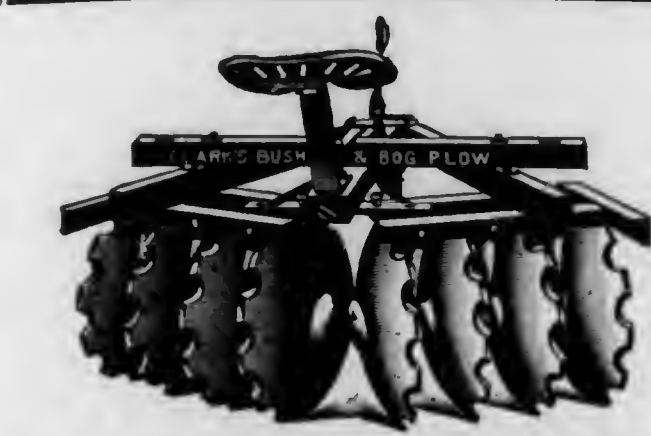
These prominent Philadelphia horse-owners all use Fairfield's Blood Tonic for Horses, and testify to its value: Briggs's Riding Academy; Hemphill Brothers; Bell Coal Co.; J. and P. Baltz Brewing Co.; Baugh and Sons Co.; Swift and Co.; Keebler-Wright Baking Co.; I. F. Ho-ker, U. S. Mail Contractor; People Brothers, contractors; Barnes-Erb Co. Laundry; Bergner and Engel Brewing Co.; Thomas Bradley.

Fairfield's Tonic and Milk-producer will make your cows give more and better milk.

It supplies the dry winter foods with all the appetizing flavor and nutritious value of fresh green grain & grass, so essential to cows during the winter when they are housed. It assists digestion; prevents fermentation; makes the cow comfortable, and makes her milk rich, pure and abundant. Our Tonic will positively increase the milk output of your cows.

Read what these well-known dairymen say:
Abbott Alderney Dairies, Philadelphia:—"Having used your Blood Tonics with very satisfactory results, I am free to say that I believe they are especially adapted to the different animals for which you recommend them."
Hon. E. T. Gill, Haddon Farms Dairy, N. J., producer of certified and pasteurized milk:—"It gives me pleasure to commend your Tonics to owners of horses and cows. I have used them with very satisfactory results."

Fairfield Manufacturing Company, 516 S. Delaware Avenue, Philadelphia



CLARK'S BUSH AND BOG PLOW

The accompanying illustration is one of Clark's Cutaway tools, and is designed to subdue bogs, or newly cleared or stump land. It is a plow of exceptional durability and strength. It cuts a tract five feet wide, one foot deep, and has eight 24 inch steel disks.

These disks turn the earth either to or from the stumps, level the land for seeding and connect the subsoil water. It is sure death to bushes, bunch grass, witch grass, hardhack thistles, wild rose, morning glory, milk weed, sun flower, or any wild plant, and is guaranteed to kill any bush, rose or plant that grows, leaving the land true, clean and ready for any crop the farmer may wish.

It also is an excellent machine for covering in sugar cane, and is the ideal tool for large hay crops. Its general utility, as well as the special purposes for which it is adapted, makes it a splendid instrument for a farmer.

Any one interested can obtain full information by addressing the Cutaway Harrow Co., 806 Main Street, Higganum, Conn., mentioning this paper.

The International Harvester Calendars and Posters.

The calendar is issued for each of the six lines of harvesting machines distributed, namely, Champion, Deering, McCormick, Milwaukee, Osborne and Plano. The posters are issued on each line of International machines. These calendars and posters are prepared for wall hangers, are works of art reproduced from fine, original, oil paintings, and make most attractive wall pieces for the homes of our readers during the present year.

One of these calendars or posters may be obtained by each reader of this paper by calling on the International local agent in your town. The different lines of harvesting machines are represented by different agents, and each has for distribution only the calendars and posters representing the machines he handles.

The almanac is full of information of value to the farmers and a very large edition has been distributed to the farmers direct, also through the Company's local agents, and they have been very much appreciated. If you haven't had one you are entitled to it, according to the Company's plan of free distribution, so bone your local dealer for it.

The Binghamton Seed Company's New Catalogue.

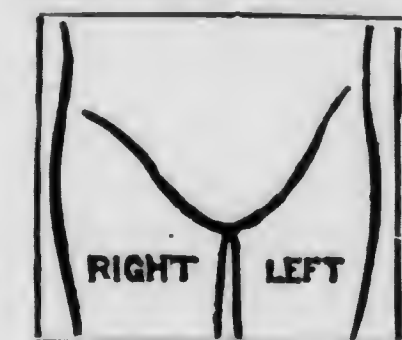
The Binghamton Seed Company's new catalogue for 1909 is printed in colors and shows a bouquet of beautiful roses in their natural tints.

The catalogue itself is very interesting. It tells about some new and desirable varieties that are probably

FREE TO THE RUPTURED

A New Home Cure that Anyone Can Use Without Operation, Danger or Loss of Time

Mark on the diagram the location of the rupture answer the questions and mail this to me, and begin your cure at once.



Dr. W. S. RICE,
295 Main Street,
Adams, N. Y.

Age.....
Cause of Rupture?.....

Name.....
Address.....

THE MOST IMPORTANT FARM MACHINE

THE MANURE SPREADER

Are you Saving Money, or are you Losing it by being without One?

You believe that money spent for a mowing machine or a binder is well invested. Still you use these machines only a few days in the year.

You use the hay rake, because it saves you time and labor.

These are valuable machines. They are now counted indispensable by most farmers, even though they stand unused over eleven months in the year.

But a manure spreader is a still more valuable machine. Its purpose is to keep up the fertility of the soil. It is the machine you use *all seasons*, and the one on which the real usefulness of all your other farm machines depends.

If you have not already done so, you should consider now the advisability of having an I. H. C. manure spreader on your farm.

You will have choice of three different spreaders in the I. H. C. line—the Cloverleaf, endless apron spreader, the Corn King, return apron spreader, and Kemp's 20th Century, a return apron spreader. Each of these spreaders handles the manure in all conditions perfectly and will give you long satisfactory service.

These spreaders are not ordinary. Their frames are made of air dried wood stock. They have serviceable, tractive, power-producing wheels, beaters that are unsurpassed for tearing the coarsest manure into the smallest pieces and applying it uniformly, aprons that deliver the

manure to the beater with the least possible friction and in a uniform manner. Any one of these machines will, if given proper care, last a lifetime.

The labor of spreading manure is greatly lessened by using one of these I. H. C. spreaders. Not only is the labor lessened, but it is changed into agreeable work.

But the strongest reason for using an I. H. C. spreader is the increased value you get out of the manure. The best authorities agree that manure spread by an I. H. C. spreader has at least double the value of manure spread by hand.

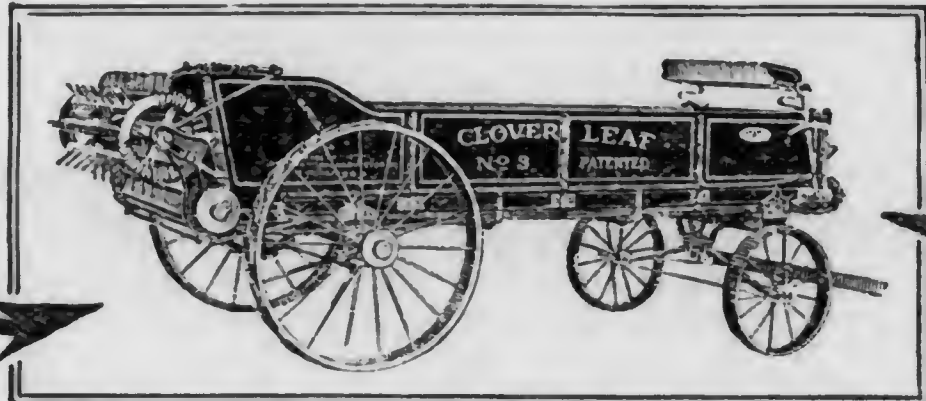
The I. H. C. spreaders pulverize and make the manure fine, and spread it evenly over the ground just as thick or as thin as may be required. The manure is placed upon the ground in a condition that is at once available for plant life. All is washed by the first shower into the soil—none is wasted.

The good effects upon the crop are immediate and the permanent benefit to the land is greater than when the manure is spread by hand. There is no question but that land manured by an I. H. C. manure spreader will give an increased yield of two to ten bushels per acre over land where manure is spread by hand.

Consider the labor saved, the more agreeable work, the better crops, the more fertile condition of the land—is not an I. H. C. manure spreader the machine you should have?

Are you not losing money instead of saving money by being without one?

Call on the International local agent and investigate one of these machines. He will supply you with catalog and particulars, or if you prefer write direct to the home office.



**INTERNATIONAL HARVESTER
COMPANY OF AMERICA**
(INCORPORATED)
CHICAGO, U.S.A.

catalogue. It will aid very materially in planning your seed expenditures and will save you money. Address the Binghamton Seed Co., 111 Court street, Binghamton, N. Y.

THE GREATEST AMERICAN INDUSTRY IS FEEDING ITS PEOPLE

According to the latest United States census, the manufacturer of foods (excluding liquors) leads all other manufacturing industries, the value of the annual output being \$2,277,702,000, or 17.5 per cent of the total value of the manufactured products of the United States. This is \$500,000,000 greater than the value of the iron and steel industry output. It is a wonderful example of the growth of factory methods in an industry once (less than fifty years ago) to a large extent domestic.

Regarding the expenditures for food, we have but to take into consideration the well known actual statistical fact that nine-tenths of the people of this and other lands spend from 50 to 65 per cent of their income (estimated for the great majority of American families to be not over \$500 yearly) for food alone, not including its preparation for the table at that.

Dr. Edward Atkinson's estimate of \$1.50 per week, spent for food and drink for each adult, is surely moderate enough. This, upon an adult population basis of 60,000,000, gives us a weekly expenditure of \$90,000,000, which in a year would amount to the gigantic total of \$4,680,000,000. It is probably an underestimate to say that \$6,000,000,000 is expended annually for food and drink for our approximate 80,000,000 population.

Take one very small item alone. According to an estimate made several years ago by the American Baking Powder Association, we buy 118,500,000 pounds of baking powder per annum, at a cost of about \$35,500,000.

It is an amazing fact that although the cost of food makes up so large a part of the cost of living and plays so important a part in economic and sociological problems, the most intelligent people know less concerning the elementary facts of food, its composition, sources, preparation for market, nutritive value, adulteration, misbranding, etc., than of almost any other necessary of life.

The preparation of food for the table is still very crude with us in the New World, and the amount wasted is simply appalling. Did you ever stop to think that the waste in each five or six families is probably sufficient for

one additional family? One fact is quite certain, with increasing population, and growing competition, a change in methods will compel itself whether we are agreeable or not.

Leaf Buds and Fruit Buds.

When pruning fruit trees bear in mind the difference between leaf buds and fruit buds. If you don't know the difference between fruit buds and leaf buds, put up your knife till you find out. Leaf buds are pointed and fruit buds are roundish.

There are lots of little things like this that are apt to be forgotten.

Top Pruning.

It is impossible to transplant a tree without losing one-half to two-thirds of its feeding roots, hence at this time, if at no other, the tree should receive a severe top pruning. Such pruning is very valuable, since it lessens the amount of transpiration, prevents wind injury, and helps in establishing an equilibrium between the top and root.

"I thought you told me you were playing the heavy part in this spectacular drama?" "So I am." "Why, you don't even appear on the stage." "Oh, yes, I do. I am the hind legs of the elephant."

**End of
Volume**